STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL	1. WELL NAME and NUMBER: NBU 1022-10M1AS
2. TYPE OF WORK: DRILL NEW WELL (●) REENTER P&A WELL ( ) DEEPEN WELL ( )	3. FIELD OR WILDCAT: NATURAL BUTTES
4. TYPE OF WELL: Gas Well Coalbed Methane Well: NO	5. UNIT or COMMUNITIZATION AGREEMENT NAME: NATURAL BUTTES
6. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. OPERATOR PHONE: 720 929-6587
8. ADDRESS OF OPERATOR: P.O. Box 173779, Denver, CO, 80217	9. OPERATOR E-MAIL: mary.mondragon@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE): UTU 01196C	11. MINERAL OWNERSHIP: FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )
12. SURFACE OWNERSHIP: FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )	
13. NAME OF SURFACE OWNER (if box 12 = 'fee')	14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')	16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS: YES (●) (Submit Commingling Application) NO ( )
19. SLANT: VERTICAL ( ) DIRECTIONAL (●) HORIZONTAL ( )	

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	173 FSL 1784 FWL	SESW	10	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	1310 FSL 1030 FWL	SWSW	10	10.0 S	22.0 E	S
At Total Depth	1310 FSL 1030 FWL	SWSW	10	10.0 S	22.0 E	S

21. COUNTY	22. DISTANCE TO NEAREST LEASE LINE (Feet)	23. NUMBER OF ACRES IN DRILLING UNIT
UINTAH	1030	400
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed): 510	26. PROPOSED DEPTH: MD: 8949 TVD: 8630
27. ELEVATION - GROUND LEVEL: 5094	28. BOND NUMBER	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE: Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORCANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☑ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME Danielle Piernot	TITLE Regulatory Analyst	PHONE 720 929-6156
SIGNATURE	DATE 09/01/2009	EMAIL danielle.piernot@anadarko.com

API NUMBER ASSIGNED
43047506350000

APPROVAL

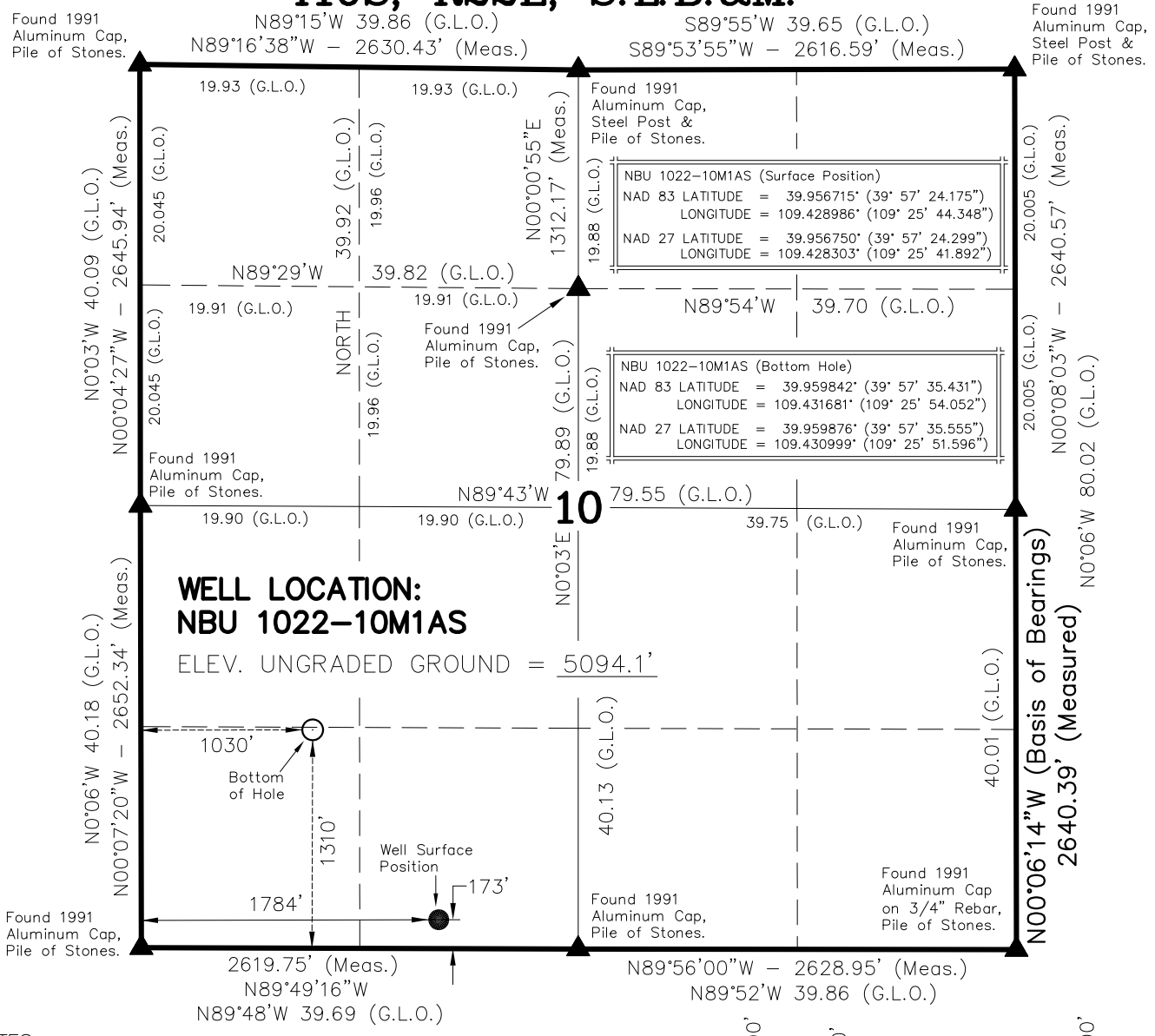
Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	12.25	9.625	0	1985		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	1985	36.0			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	8949		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 Buttress	8949	11.6			

'APIWellNo:43047506350000'

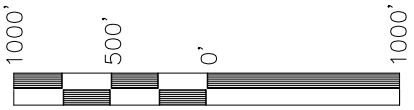
T10S, R22E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears N33°35'05"W 1367.21' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR No.362251 KOLBY R. KAY STATE OF UTAH

Kolby R. Kay

REGISTERED LAND SURVEYOR
REGISTRATION No. 362251
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street – Denver, Colorado 80202

NBU 1022-10M1AS
WELL PLAT
1310' FSL, 1030' FWL (Bottom Hole)
SW ¼ SW ¼ OF SECTION 10, T10S, R22E,
S.L.B.&M. UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
38 WEST 100 NORTH – VERNAL, UTAH 84078

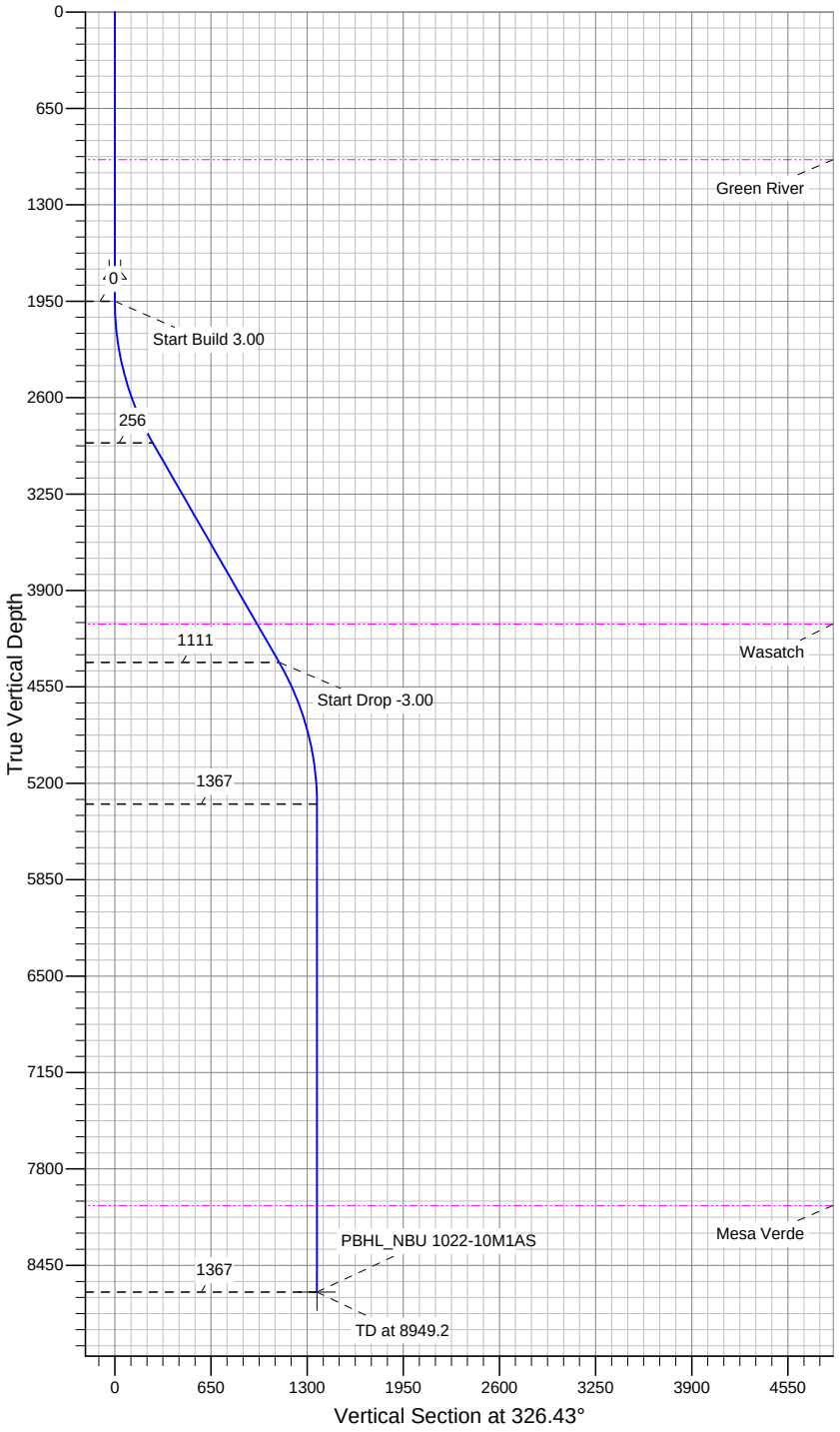
DATE SURVEYED: 10-16-08	SURVEYED BY: M.S.B.	SHEET 2 OF 13
DATE DRAWN: 10-21-08	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'	Date Last Revised: 02-24-09	

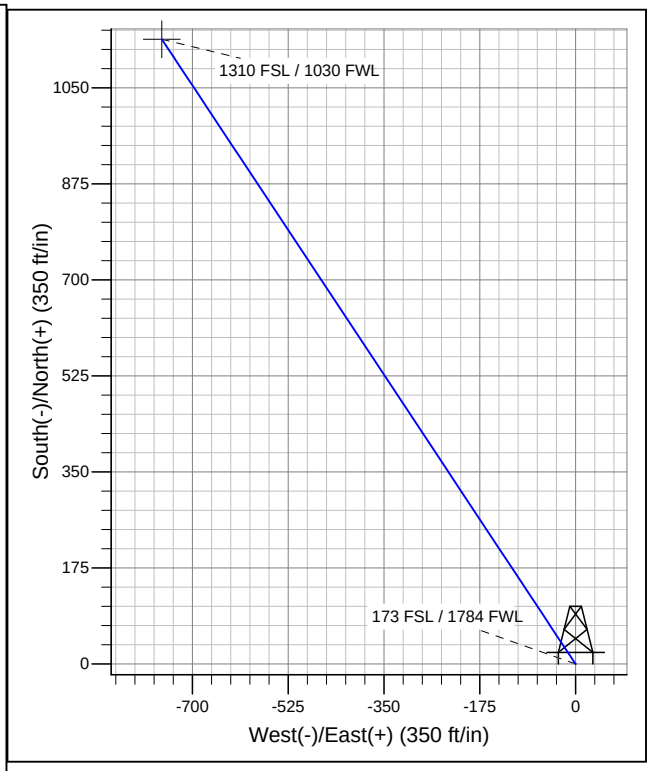
’APIWellNo:43047506350000’

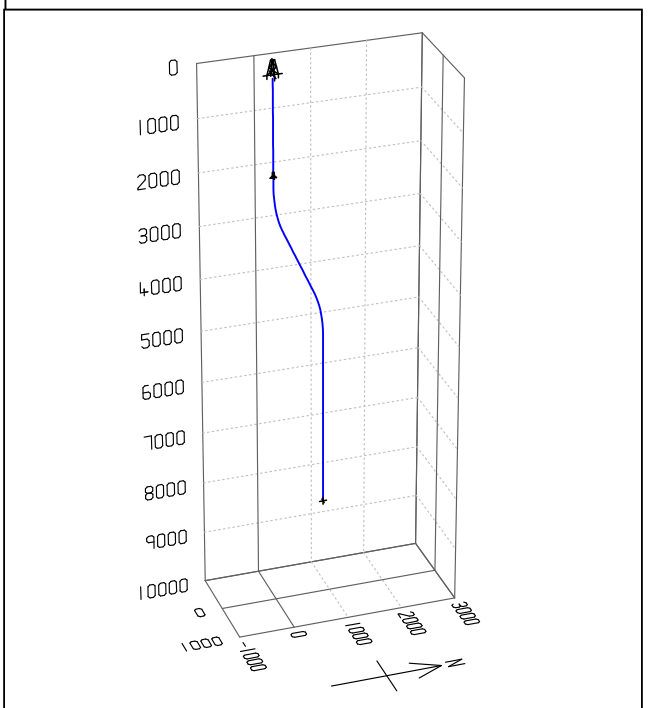
Anadarko Petroleum Corporation

Well Name: P_NBU 1022-10M1AS
Surface Location: UINTAH_NBU 1022-10N PAD
NAD 1927 (NADCON CONUS)US State Plane 1927 (Exact solution)
UTAH CENTRAL ZONE - 27
Ground Elevation: 5094.0

Northing	Easting	Latitude	Longitude
598016.98	2580684.75	39.956750°N	109.428303°W

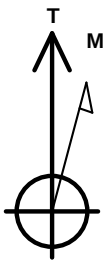






SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	1950.0	0.00	0.00	1950.0	0.0	0.0	0.00	0.00	0.0
3	2950.0	30.00	326.43	2904.9	213.2	-141.5	3.00	326.43	255.9
4	4659.7	30.00	326.43	4385.6	925.4	-614.2	0.00	0.00	1110.7
5	5659.7	0.00	0.00	5340.5	1138.6	-755.7	3.00	180.00	1366.6
6	8949.2	0.00	0.00	8630.0	1138.6	-755.7	0.00	0.00	1366.6



Azimuths to True North
Magnetic North: 11.30°

Magnetic Field
Strength: 52557.5snT
Dip Angle: 65.91°
Date: 4/13/2009
Model: IGRF200510

ROCKIES - PLANNING

UTAH CENTRAL ZONE - 27
UINTAH_NBU 1022-10N PAD
P_NBU 1022-10M1AS
P_NBU 1022-10M1AS

Plan: Plan #1 04-13-09 ZJRA6

Standard Planning Report - Geographic

13 April, 2009

APC

Planning Report - Geographic

Database:	apc_edmp	**Local Co-ordinate Reference:**	Well P_NBU 1022-10M1AS
Company:	ROCKIES - PLANNING	**TVD Reference:**	WELL @ 5094.0ft (Original Well Elev)
Project:	UTAH CENTRAL ZONE - 27	**MD Reference:**	WELL @ 5094.0ft (Original Well Elev)
Site:	UINTAH_NBU 1022-10N PAD	**North Reference:**	True
Well:	P_NBU 1022-10M1AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 1022-10M1AS		
Design:	Plan #1 04-13-09 ZJRA6		

Project UTAH CENTRAL ZONE - 27

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site UINTAH_NBU 1022-10N PAD

Site Position:		**Northing:**	598,030.96 ft	**Latitude:**	39.956786°N
From:	Lat/Long	**Easting:**	2,580,722.00 ft	**Longitude:**	109.428169°W
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	1.33 °

Well P_NBU 1022-10M1AS

Well Position	**+N/-S**	0.0 ft	**Northing:**	598,016.98 ft	**Latitude:**	39.956750°N
	+E/-W	0.0 ft	**Easting:**	2,580,684.75 ft	**Longitude:**	109.428303°W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,094.0 ft

Wellbore P_NBU 1022-10M1AS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	4/13/2009	11.30	65.91	52,557

Design Plan #1 04-13-09 ZJRA6

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	8,630.0	0.0	0.0	326.43

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,950.0	0.00	0.00	1,950.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,950.0	30.00	326.43	2,904.9	213.2	-141.5	3.00	3.00	0.00	326.43	
4,659.7	30.00	326.43	4,385.6	925.4	-614.2	0.00	0.00	0.00	0.00	
5,659.7	0.00	0.00	5,340.5	1,138.6	-755.7	3.00	-3.00	0.00	180.00	
8,949.2	0.00	0.00	8,630.0	1,138.6	-755.7	0.00	0.00	0.00	0.00	PBHL_NBU 1022-1

APC

Planning Report - Geographic

Database:	apc_edmp	**Local Co-ordinate Reference:**	Well P_NBU 1022-10M1AS
Company:	ROCKIES - PLANNING	**TVD Reference:**	WELL @ 5094.0ft (Original Well Elev)
Project:	UTAH CENTRAL ZONE - 27	**MD Reference:**	WELL @ 5094.0ft (Original Well Elev)
Site:	UINTAH_NBU 1022-10N PAD	**North Reference:**	True
Well:	P_NBU 1022-10M1AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 1022-10M1AS		
Design:	Plan #1 04-13-09 ZJRA6		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	598,016.98	2,580,684.75	39.956750°N	109.428303°W
996.0	0.00	0.00	996.0	0.0	0.0	598,016.98	2,580,684.75	39.956750°N	109.428303°W
Green River									
1,800.0	0.00	0.00	1,800.0	0.0	0.0	598,016.98	2,580,684.75	39.956750°N	109.428303°W
Surface Casing									
1,950.0	0.00	0.00	1,950.0	0.0	0.0	598,016.98	2,580,684.75	39.956750°N	109.428303°W
2,950.0	30.00	326.43	2,904.9	213.2	-141.5	598,226.83	2,580,538.36	39.957335°N	109.428808°W
4,361.1	30.00	326.43	4,127.0	801.1	-531.7	598,805.51	2,580,134.68	39.958949°N	109.430200°W
Wasatch									
4,659.7	30.00	326.43	4,385.6	925.4	-614.2	598,927.94	2,580,049.27	39.959291°N	109.430494°W
5,659.7	0.00	0.00	5,340.5	1,138.6	-755.7	599,137.80	2,579,902.88	39.959876°N	109.430999°W
8,365.2	0.00	0.00	8,046.0	1,138.6	-755.7	599,137.80	2,579,902.88	39.959876°N	109.430999°W
Mesa Verde									
8,949.2	0.00	0.00	8,630.0	1,138.6	-755.7	599,137.80	2,579,902.88	39.959876°N	109.430999°W

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_NBU 1022-10M - plan hits target center - Point	0.00	0.00	8,630.0	1,138.6	-755.7	599,137.80	2,579,902.88	39.959876°N	109.430999°W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
1,800.0	1,800.0	Surface Casing	9-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
996.0	996.0	Green River		0.00	
8,365.2	8,046.0	Mesa Verde		0.00	
4,361.1	4,127.0	Wasatch		0.00	

NBU 1022-10M1AS

Pad: NBU 1022-10N
Surface: 173’ FSL 1,784’ FWL (SE/4SW/4)
BHL: 1,310’ FSL 1,030’ FWL (SW/4SW/4)
Sec. 10 T10S R22E

Uintah, Utah
Mineral Lease: UTU 01196C

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	996’	
Birds Nest	1,315’	Water
Mahogany	1,784’	Water
Wasatch	4,127’	Gas
Mesaverde	6,478’	Gas
MVU2	7,446’	Gas
MVL1	8,046’	Gas
TVD	8,630’	
TD	8,949’	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 8,630' TVD, approximately equals 5,343 psi (calculated at 0.60 psi/foot).

Maximum anticipated surface pressure equals approximately 3,254 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

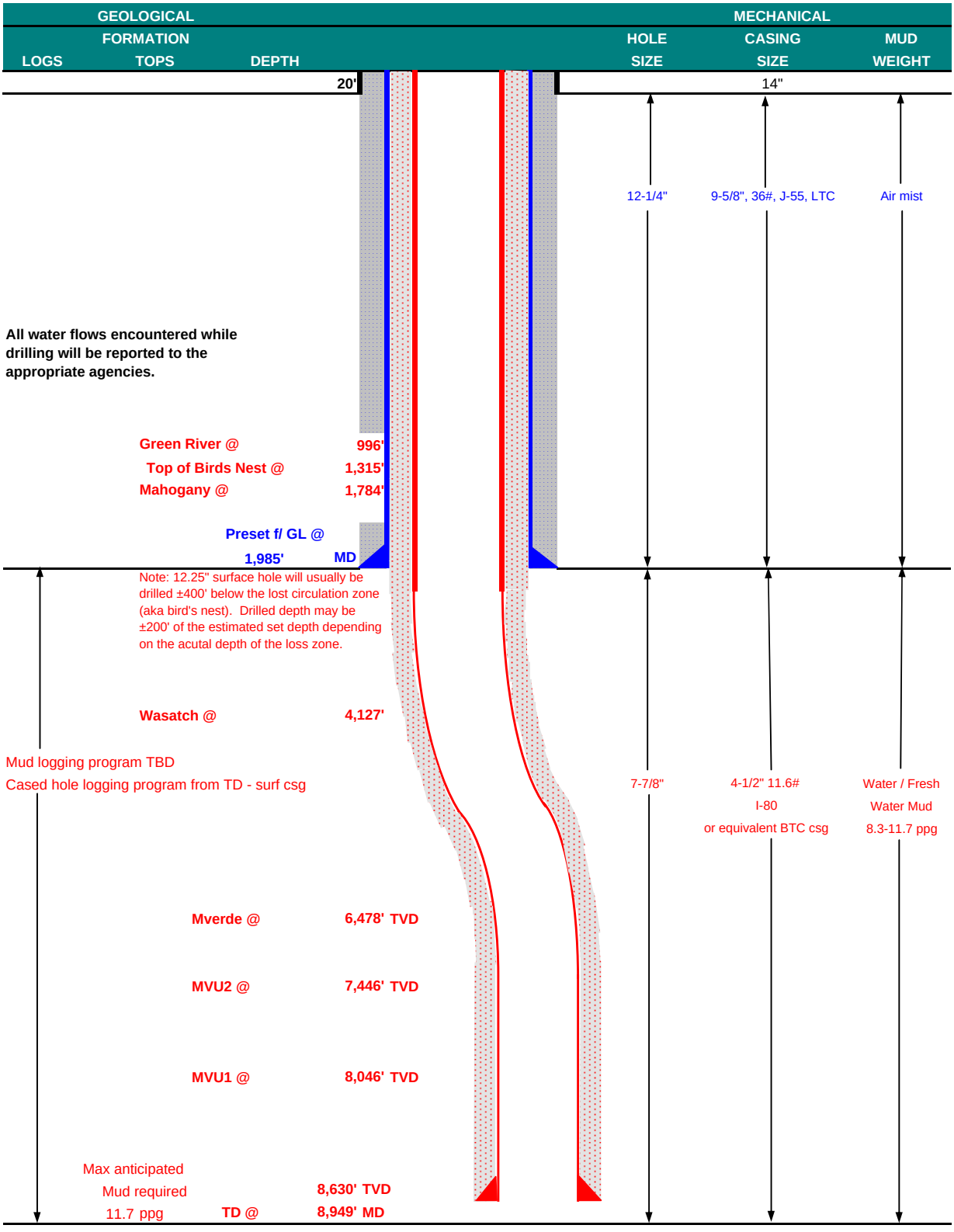
Please refer to the attached Drilling Program.

’APIWellNo:43047506350000’

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	August 12, 2009	
WELL NAME	**NBU 1022-10M1AS**		TD	8,630' TVD	8,949' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah		FINISHED ELEVATION	5,094'
SURFACE LOCATION	SE/4 SW/4 173' FSL	1,784' FWL	Sec 10 T 10S R 22E		
	Latitude: 39.956715	Longitude: -109.428986		NAD 83	
BTM HOLE LOCATION	SW/4 SW/4 1,310' FSL	1,030' FWL	Sec 10 T 10S R 22E		
	Latitude: 39.959842	Longitude: -109.431681		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), Tri-County Health Dept.				



'APIWellNo:43047506350000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	1,985	36.00	J-55	LTC	1.01	2.17	8.07
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	8,949	11.60	I-80	BTC	2.32	1.21	3.07

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 11.7 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,254 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 11.7 ppg) 0.6 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,343 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	1,485'	65/35 Poz + 6% Gel + 10 pps gilsonite	350	35%	12.60	1.81
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,619'	Premium Lite II + 3% KCl + 0.25 pps	340	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,330'	50/50 Poz/G + 10% salt + 2% gel	1,310	40%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained
*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

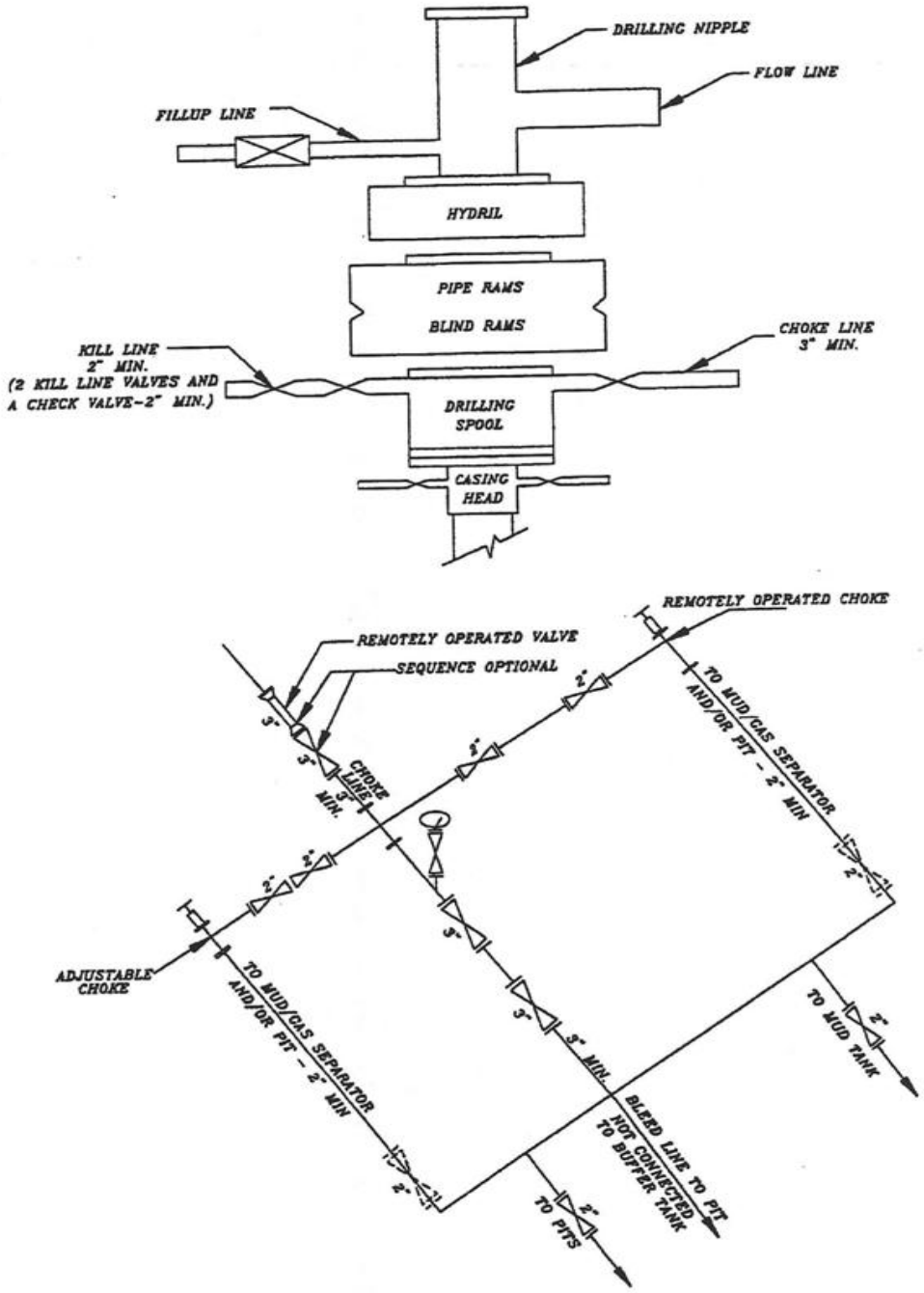
Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

EXHIBIT A
NBU 1022-10M1AS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047506350000'

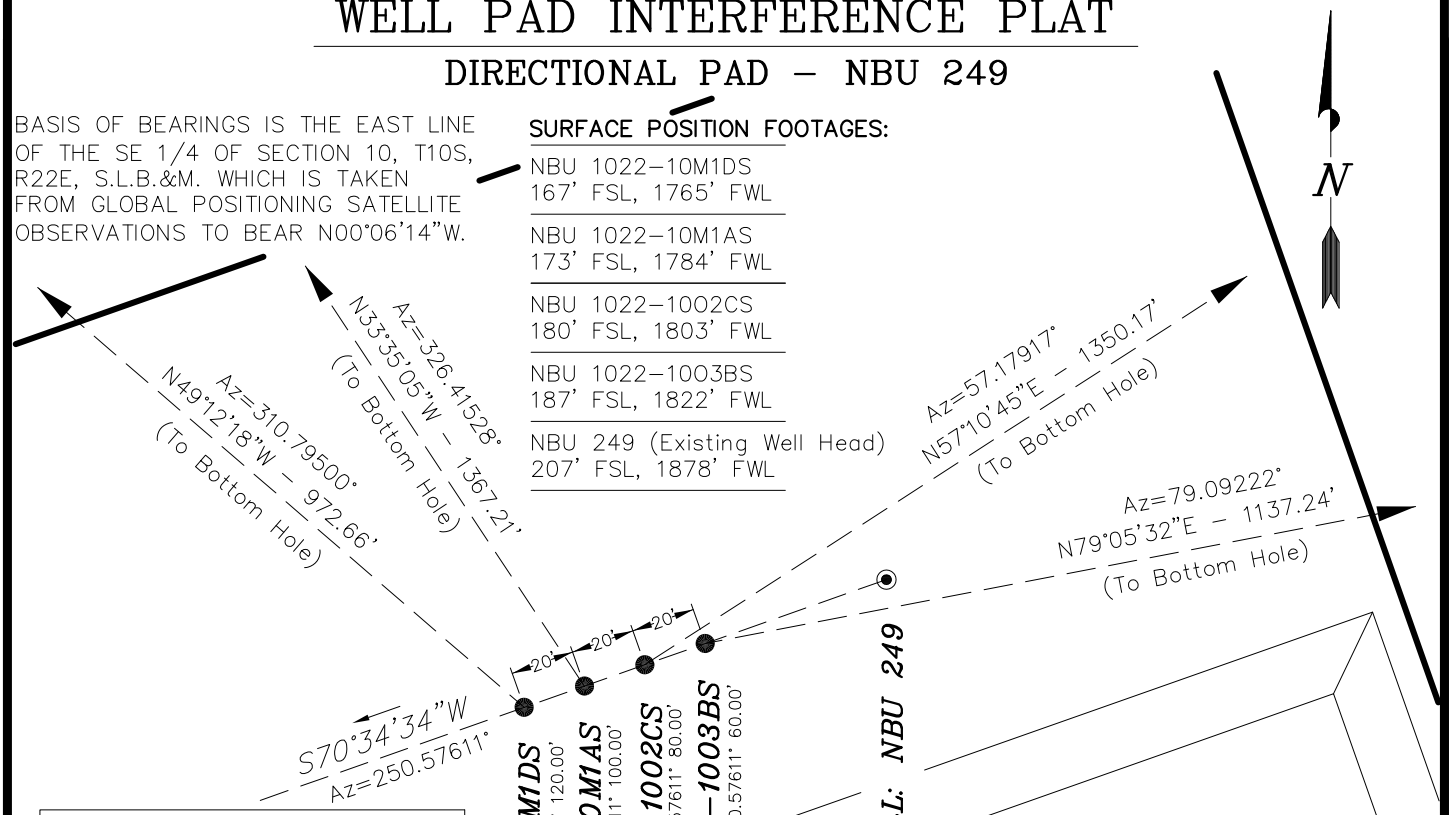
WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD – NBU 249

BASIS OF BEARINGS IS THE EAST LINE OF THE SE 1/4 OF SECTION 10, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°06'14"W.

SURFACE POSITION FOOTAGES:

NBU 1022–10M1DS	167' FSL, 1765' FWL
NBU 1022–10M1AS	173' FSL, 1784' FWL
NBU 1022–10O2CS	180' FSL, 1803' FWL
NBU 1022–10O3BS	187' FSL, 1822' FWL
NBU 249 (Existing Well Head)	207' FSL, 1878' FWL



BOTTOM HOLE FOOTAGES

NBU 1022–10M1DS	800' FSL, 1030' FWL
NBU 1022–10M1AS	1310' FSL, 1030' FWL
NBU 1022–10O2CS	915' FSL, 2310' FEL
NBU 1022–10O3BS	405' FSL, 2310' FEL

LATITUDE & LONGITUDE
Surface Position – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
1022–10M1DS	39°57'24.111" 39.956697°	109°25'44.590" 109.429053°
1022–10M1AS	39°57'24.175" 39.956715°	109°25'44.348" 109.428986°
1022–10O2CS	39°57'24.242" 39.956734°	109°25'44.106" 109.428918°
1022–10O3BS	39°57'24.308" 39.956752°	109°25'43.863" 109.428851°
EXISTING WELL NBU 249	39°57'24.505" 39.956807°	109°25'43.136" 109.428649°

LATITUDE & LONGITUDE
Surface Position – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
1022–10M1DS	39°57'24.234" 39.956732°	109°25'42.134" 109.428371°
1022–10M1AS	39°57'24.299" 39.956750°	109°25'41.892" 109.428303°
1022–10O2CS	39°57'24.366" 39.956768°	109°25'41.650" 109.428236°
1022–10O3BS	39°57'24.431" 39.956786°	109°25'41.407" 109.428169°
EXISTING WELL NBU 249	39°57'24.628" 39.956841°	109°25'40.681" 109.427967°

LATITUDE & LONGITUDE
Bottom Hole – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
1022–10M1DS	39°57'30.392" 39.958442°	109°25'54.041" 109.431678°
1022–10M1AS	39°57'35.431" 39.959842°	109°25'54.052" 109.431681°
1022–10O2CS	39°57'31.468" 39.958741°	109°25'29.535" 109.424871°
1022–10O3BS	39°57'26.429" 39.957341°	109°25'29.526" 109.424868°

LATITUDE & LONGITUDE
Bottom Hole – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
1022–10M1DS	39°57'30.516" 39.958477°	109°25'51.584" 109.430996°
1022–10M1AS	39°57'35.555" 39.959876°	109°25'51.596" 109.430999°
1022–10O2CS	39°57'31.592" 39.958775°	109°25'27.079" 109.424189°
1022–10O3BS	39°57'26.553" 39.957376°	109°25'27.070" 109.424186°

RELATIVE COORDINATES
From Surface Position to Bottom Hole

WELL	NORTH	EAST
1022–10M1DS	635'	–736'
1022–10M1AS	1139'	–756'
1022–10O2CS	732'	1135'
1022–10O3BS	215'	1117'

60' 30' 0' 60'

SCALE

Kerr–McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O2CS & NBU 1022-10O3BS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M. UINTAH COUNTY, UTAH.

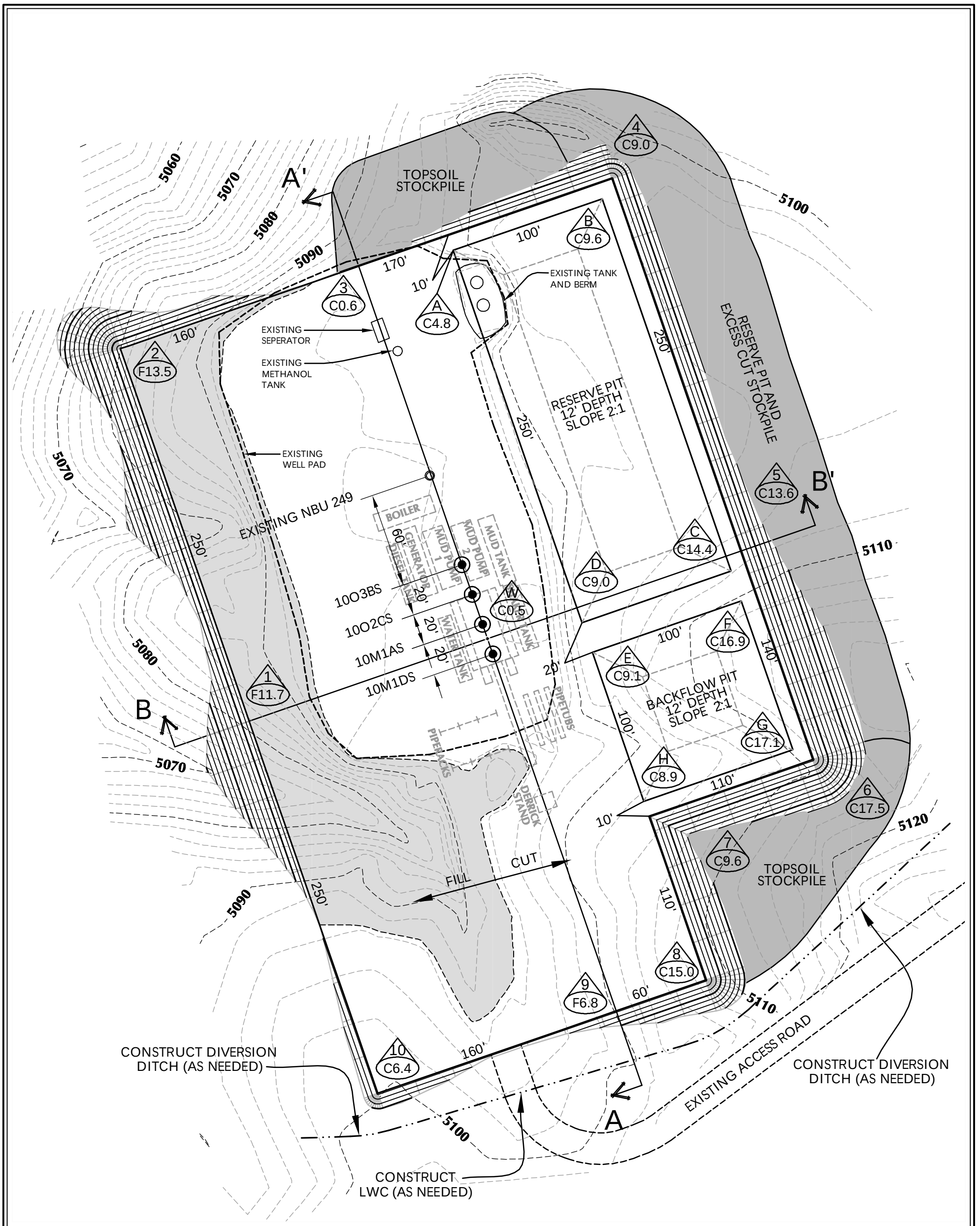
609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

DATE SURVEYED: 10-16-08	SURVEYED BY: M.S.B.
DATE DRAWN: 10-21-08	DRAWN BY: E.M.S.
	REVISED: 02-07-09

Timberline (435) 789–1365
Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET 5 OF 13

’APIWellNo:43047506350000’



KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - LOCATION LAYOUT
NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-10O2CS, NBU 1022-10O3BS
LOCATED IN SECTION 10, T.10S., R.22E.
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD NBU 249 QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 5,094.0'
FINISHED GRADE ELEVATION = 5,093.5'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 25,900 C.Y.
TOTAL FILL FOR WELL PAD = 10,567 C.Y.
TOPSOIL @ 6" DEPTH = 2,460 C.Y.
EXCESS MATERIAL = 15,333 C.Y.
TOTAL DISTURBANCE = 4.18 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,730 BARRELS
RESERVE PIT VOLUME
+/- 7,720 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 9,490 BARRELS
BACKFLOW PIT VOLUME
+/- 2,660 CY

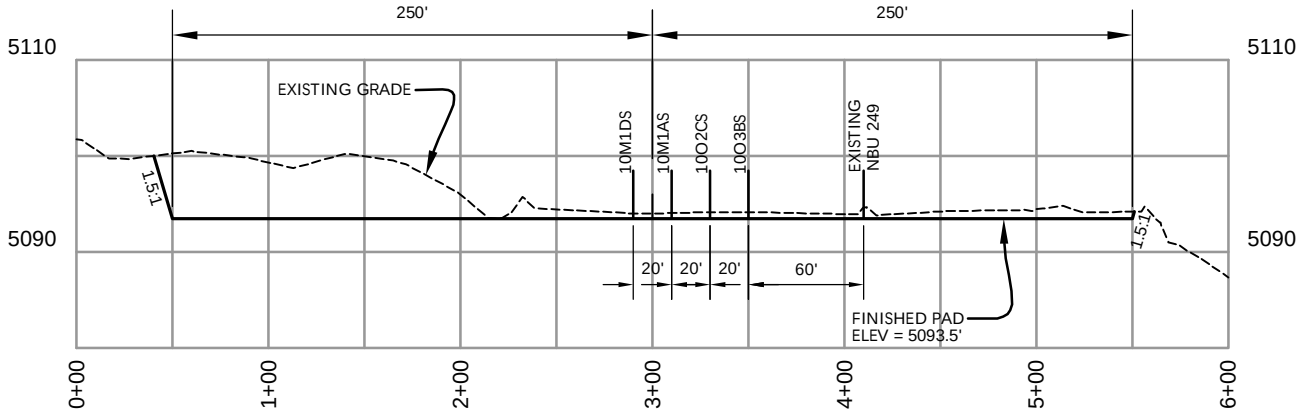
WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

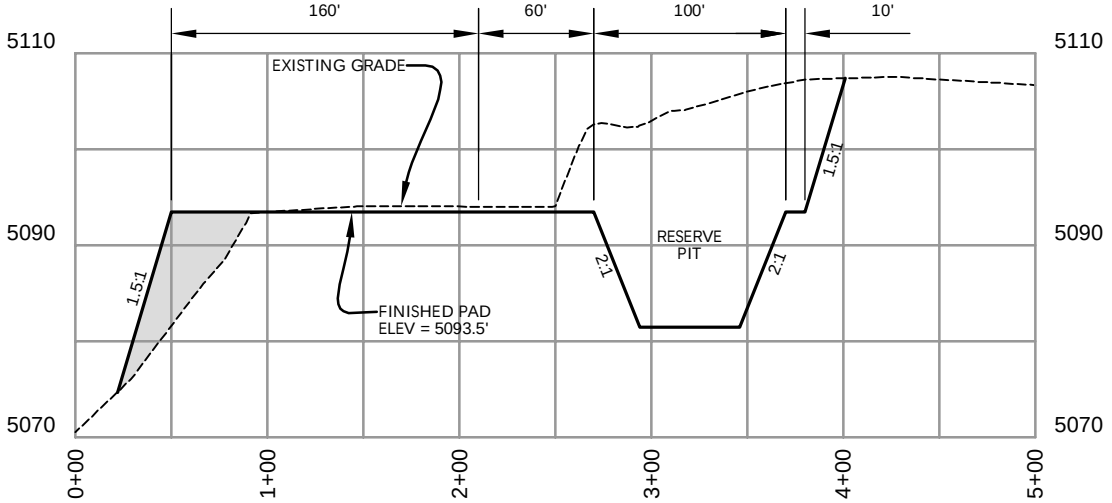
HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

Scale: 1"=60'	Date: 2/24/09	SHEET NO:	
REVISED:	GH 4/7/09	6	6 OF 13

Timberline Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078 (435) 789-1365



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - CROSS SECTIONS
NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-10O2CS, NBU 1022-10O3BS
LOCATED IN SECTION 10, T.10S., R.22E.
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100'	Date: 2/24/09	SHEET NO:
REVISED:	BY DATE	7 OF 13

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

Timberline Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078 (435) 789-1365

'API WellNo:43047506350000'
K:\ANADARKO\2008_27_NBU_Directional_Wells\DWGS\NBU_DIRECTIONAL_JAN_FEB_2009_CESI.dwg, 2/24/2009 2:13:05 PM, PDF-XChange for AcroPlot Pro

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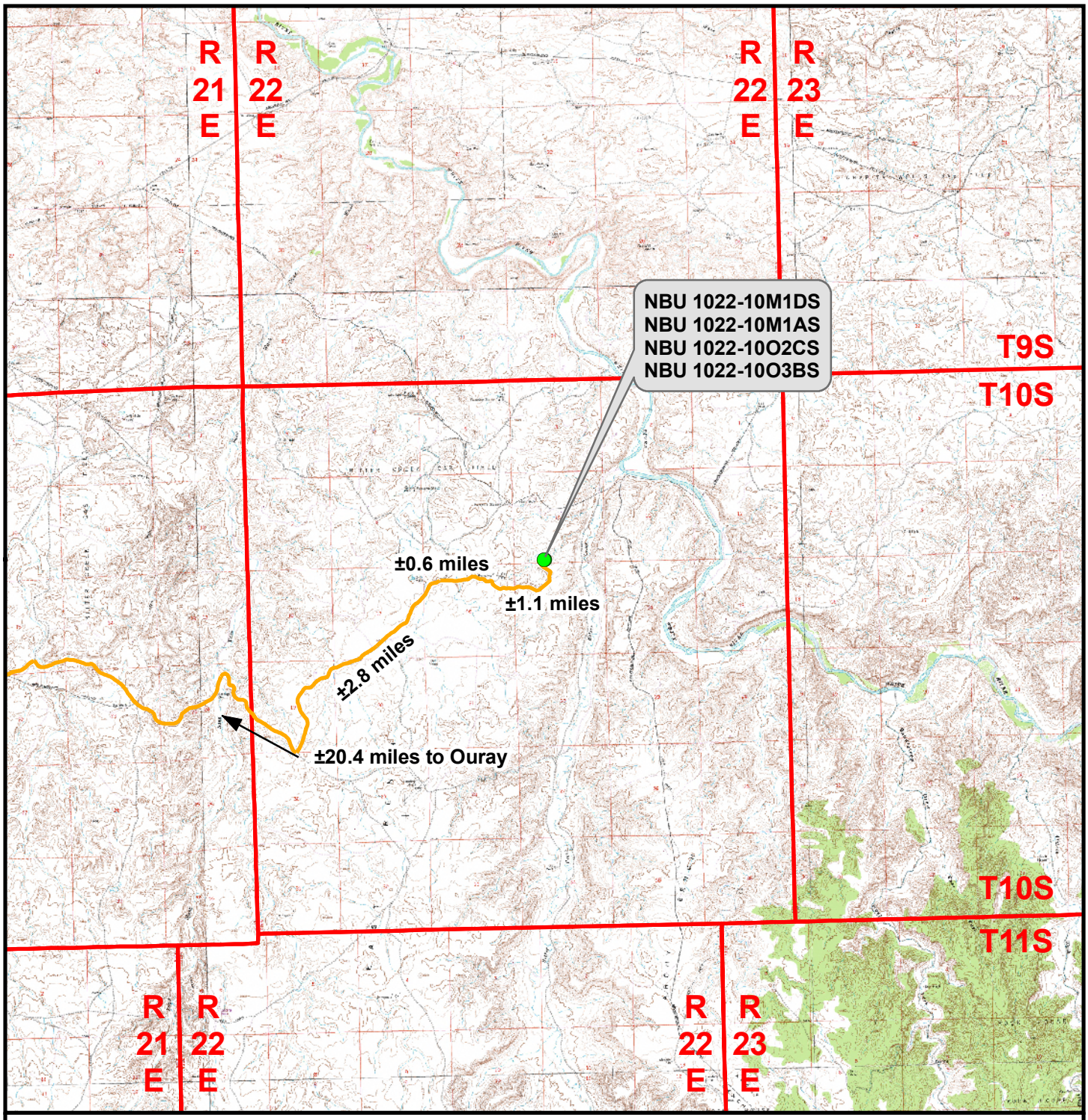


Legend

- Proposed Well Location
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

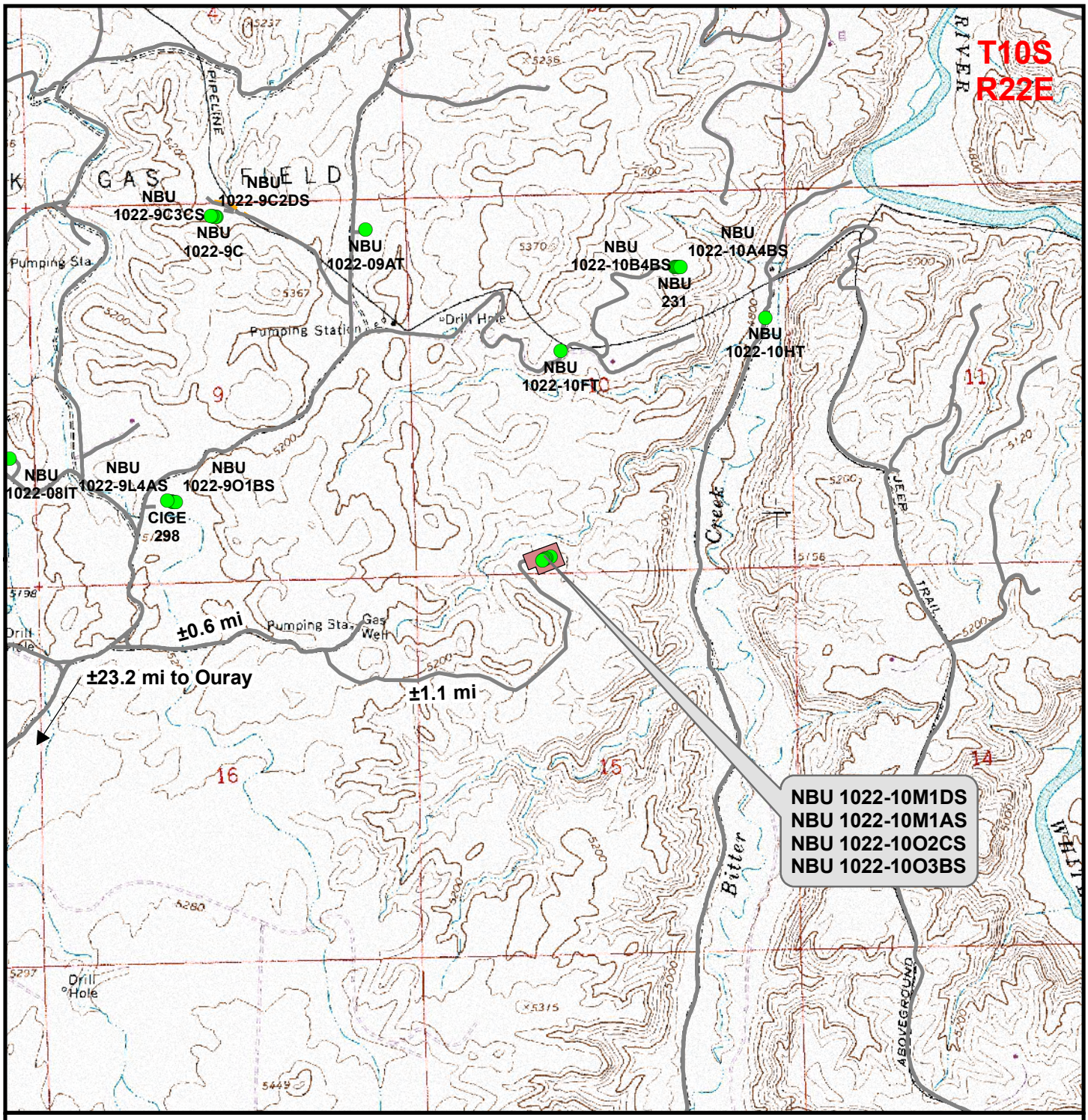
NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O2CS & NBU 1022-10O3BS
Topo A
Located In Section 10, T10S, R22E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central	Sheet No: 9	9 of 13
Drawn: JELo	Date: 7 April 2009		
Revised: CPS	Date: 6 May 2009		

’APIWellNo:43047506350000’



Legend

Total Proposed Road Length: ±0ft

Well - Proposed | Well Pad | Road - Proposed | Road - Existing

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

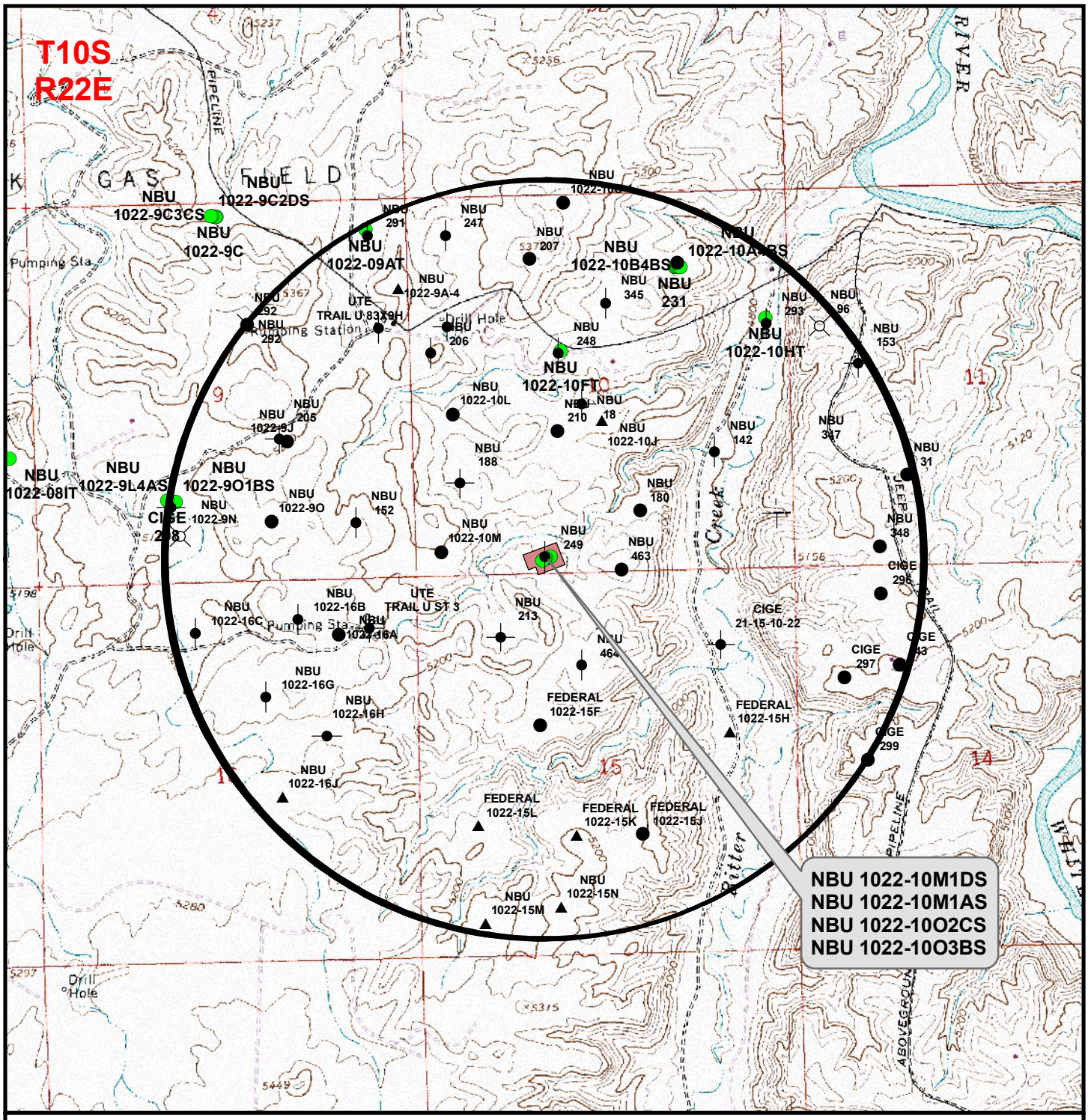
NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O2CS & NBU 1022-10O3BS
Topo B
Located In Section 10, T10S, R22E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 10 of 13	
Drawn: JELo	Date: 7 April 2009		
Revised: CPS	Date: 6 May 2009		

’APIWellNo:43047506350000’



Legend

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Well - Proposed
- Well - 1 Mile Radius
- Producing
- Location Abandoned
- Shut-In
- Well Pad
- Approved permit (APD); not yet spudded
- Temporarily-Abandoned
- Spudded (Drilling commenced: Not yet comple
- Plugged and Abandoned

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

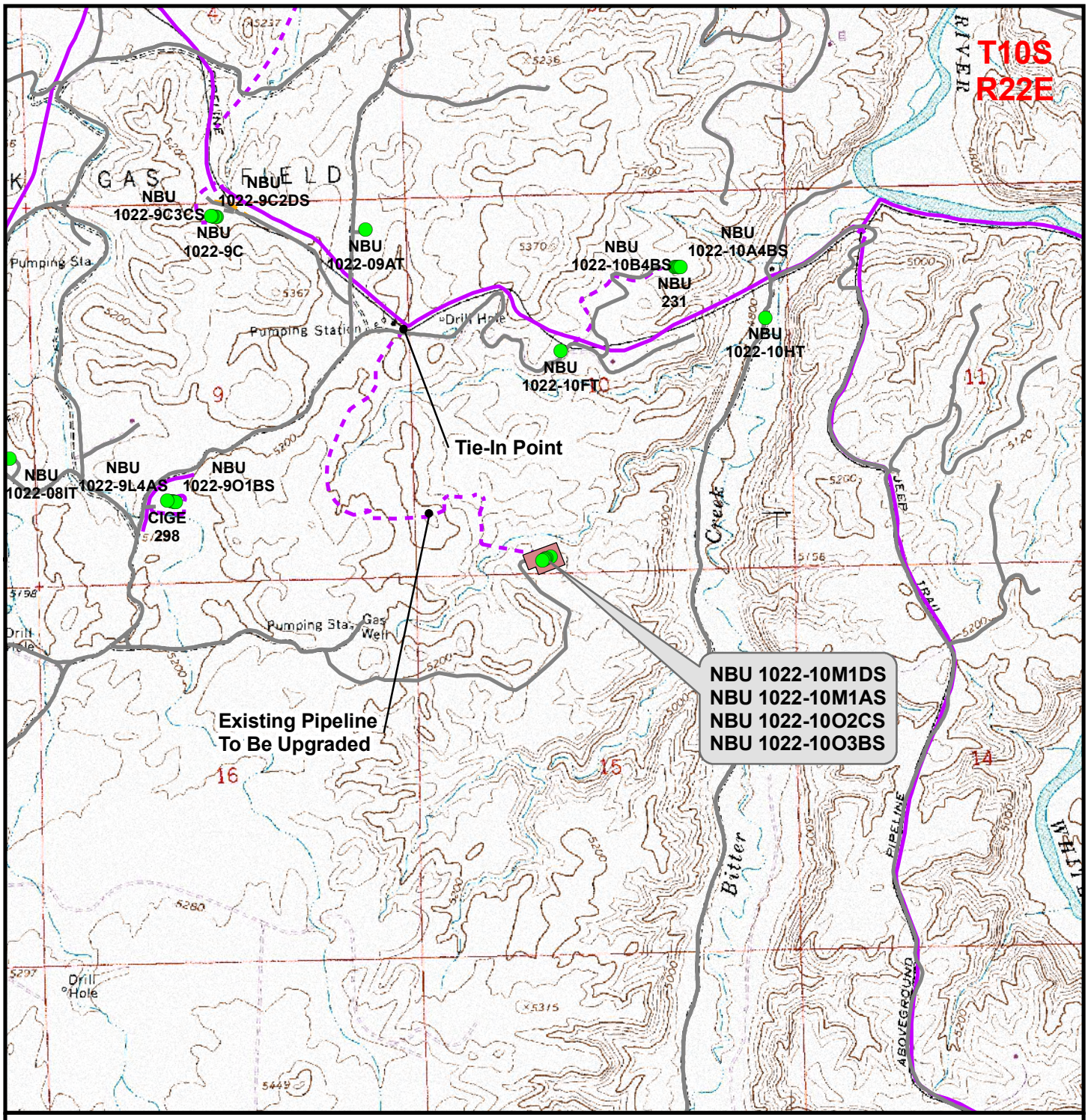
NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O2CS & NBU 1022-10O3BS
Topo C
Located In Section 10, T10S, R22E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 11	11 of 13
Drawn: JELo	Date: 7 April 2009		
Revised: CPS	Date: 6 May 2009		

’APIWellNo:43047506350000’



Legend

Well - Proposed | Well Pad | Road - Proposed | Pipeline - Proposed | Road - Existing | Pipeline - Existing

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±6,600ft
Proposed Pipeline Length Around Pad: ±660ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O2CS & NBU 1022-10O3BS
Topo D
Located In Section 10, T10S, R22E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 12	12 of 13
Drawn: JELo	Date: 7 April 2009		
Revised: CPS	Date: 6 May 2009		

'APIWellNo:43047506350000'

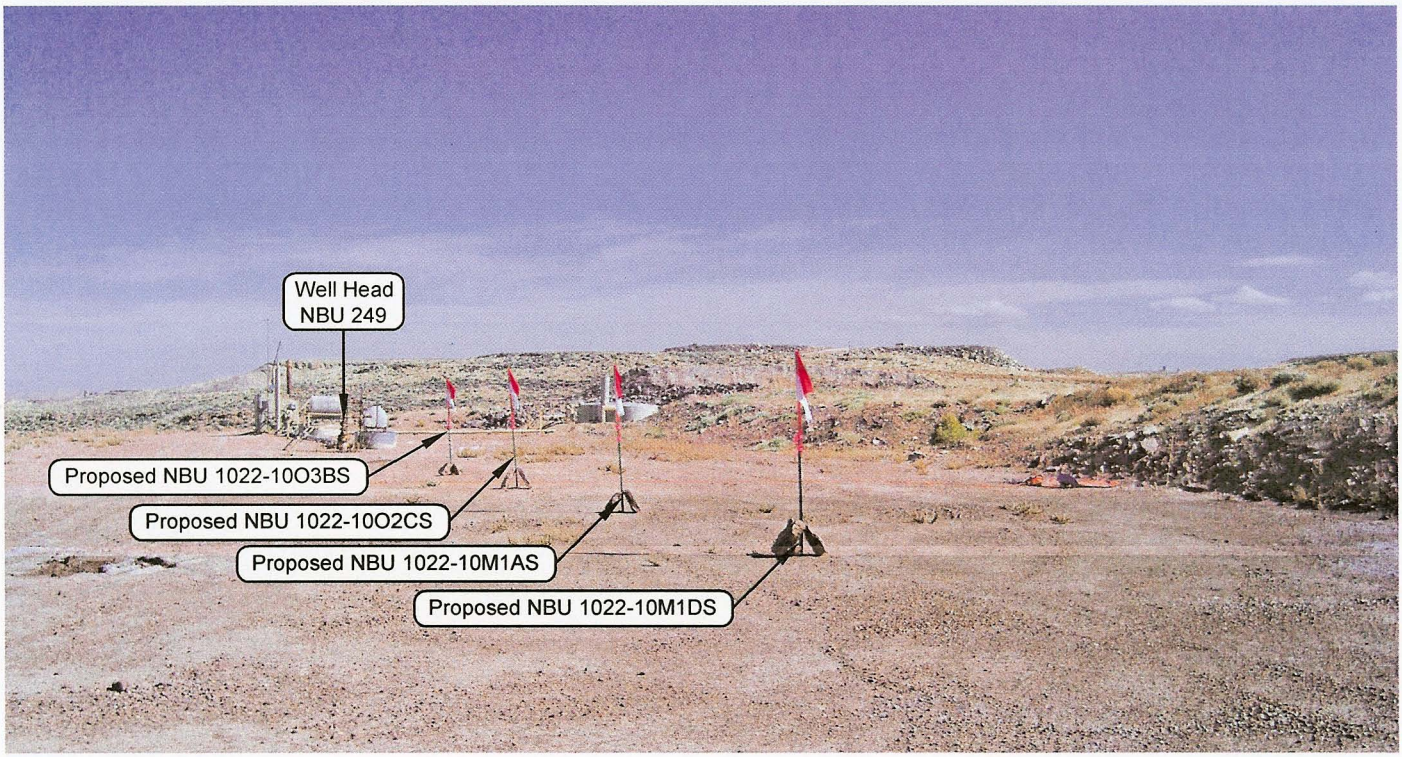


PHOTO VIEW: FROM LOCATION STAKES TO EXISTING WELL HEAD CAMERA ANGLE: EASTERLY

PHOTO VIEW: FROM EXISTING ROAD TO LOCATION STAKES CAMERA ANGLE: EASTERLY

Kerr–McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-10O2CS & NBU 1022-10O3BS
LOCATED IN SECTION 10, T10S, R22E,
S.L.B.&M. UINTAH COUNTY, UTAH.

CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

LOCATION PHOTOS		DATE TAKEN: 10-16-08
		DATE DRAWN: 10-21-08
TAKEN BY: M.S.B.	DRAWN BY: E.M.S.	REVISED: 02-07-09

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

SHEET
8
OF 13

Kerr-McGee Oil & Gas Onshore, LP
NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O2CS & NBU 1022-10O3BS
Section 10, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 5.2 MILES TO THE INTERSECTION OF THE BITTER CREEK ROAD (COUNTY B ROAD 4120). EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG THE BITTER CREEK ROAD APPROXIMATELY 4.0 MILES TO A CLASS D COUNTY ROAD RUNNING NORTHEASTERLY. EXIT LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 2.8 MILES TO A SECOND CLASS D COUNTY ROAD RUNNING EASTERLY. EXIT RIGHT AND PROCEED IN AN EASTERLY DIRECTION ALONG THE SECOND CLASS D COUNTY ROAD APPROXIMATELY 0.6 MILES TO A SERVICE ROAD RUNNING SOUTHEASTERLY. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN NORTHERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 1.1 MILES TO THE EXISTING WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 55.6 MILES IN A SOUTHERLY DIRECTION.

’APIWellNo:43047506350000’

NBU 1022-10M1AS
Surface: 173’ FSL 1,784’ FWL (SE/4SW/4)
BHL: 1,310’ FSL 1,030’ FWL (SW/4SW/4)
Mineral Lease: UTU 01196C

NBU 1022-10M1DS
Surface: 167’ FSL 1,765’ FWL (SE/4SW/4)
BHL: 800’ FSL 1,030’ FWL (SW/4SW/4)
Mineral Lease: UTU 01196C

NBU 1022-10O2CS
Surface: 180’ FSL 1,803’ FWL (SE/4SW/4)
BHL: 915’ FSL 2,310’ FEL (SW/4SE/4)
Mineral Lease: UTU 025187

NBU 1022-10O3BS
Surface: 187’ FSL 1,822’ FWL (SE/4SW/4)
BHL: 405’ FSL 2,310’ FEL (SW/4SE/4)
Mineral Lease: UTU 025187

Pad: NBU 1022-10N
Sec. 10 T10S R22E

Uintah, Utah

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. An NOS was submitted on March 12, 2009 showing the surface locations in SE/4 SW/4 of Section 10 T10S R22E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BLM-Vernal Field Office.

An on-site meeting was held on March 31, 2009. Present were:

- Verlyn Pindell, Dave Gordon – BLM;
- Kolby Kay – 609 Consulting, LLC
- Tony Kazeck, Raleen White, Sheila Upchego, Grizz Oleen, Hal Blanchard, Charles Chase and Jeff Samuels – Kerr-McGee.

Directional Drilling:
In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

A. Existing Roads:

A) Refer to Topo Map A for directions to the location.
B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

B. Planned Access Roads:

See MDP for additional details on road construction.
No new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

C. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

D. Location of Existing and Proposed Facilities:

See MDP for additional details on Existing and Proposed Facilities.

This pad will expand the existing pad for the NBU 249, which is a shut-in well according to Utah Division of Oil, Gas and Mining (UDOGM) records.

The following guidelines will apply if the well is productive.
Approximately ±7,260' (±1.4 miles) of pipeline is proposed. The existing pipeline, as shown on Topo D, will be upgraded to accommodate anticipated production from the proposed wells. The upgraded pipeline will follow the same route as the existing pipeline. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place.

Per the onsite meeting, a Stream Alteration permit was requested and will be provided by Kerr-McGee.

E. Location and Type of Water Supply:

See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. **Source of Construction Materials:**
See MDP for additional details on Source of Construction Materials.

G. **Methods of Handling Waste Materials:**
See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

H. **Ancillary Facilities:**
See MDP for additional details on Ancillary Facilities.

None are anticipated.

I. **Well Site Layout:** (See Location Layout Diagram)
See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

J. **Plans for Reclamation of the Surface:**
See MDP for additional details on Plans for Reclamation of the Surface.

K. **Surface/Mineral Ownership:**
United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. **Other Information:**
See MDP for additional details on Other Information.

M. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Kathy Schneebeck Dulnoan

August 13, 2009
Date

Kerr-McGee Oil & Gas Onshore LP

1099 18th Street, Suite 1800
Denver, CO 80202-1918
P.O. Box 173779
Denver, CO 80217-3779
720-929-6000

May 5, 2009

Mrs. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1022-10M1AS
T10S-R22E
Section 10: SWSW
Surface: 173' FSL, 1784' FWL
Bottom Hole: 1310' FSL, 1030' FWL
Uintah County, Utah

Dear Mrs. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-10M1AS located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jason K. Rayburn
Landman

'API WellNo:43047506350000'

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 55 PROPOSED WELL LOCATIONS IN TOWNSHIP 10S, RANGE 22E, SECTIONS 4, 7, 8, 9, 10, 18 AND 20, UINTAH COUNTY, UTAH

By:

Patricia Stavish

Prepared For:
Bureau of Land Management
Vernal Field Office
and
State of Utah
School & Institutional Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-321

February 20, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

IPC #09-98

Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Pipeline Re-Routes for "NBU #1022-10M1DS, M1AS, O2CS, & O3BS" (Sec. 9 & 10, T 10 S, R 22 E)

Archy Bench
Topographic Quadrangle
Uintah County, Utah

June 4, 2009

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

SPECIAL STATUS PLANT REPORT

Operator: Anadarko Petroleum Company

Wells: NBU 1022-10M1DS
NBU 1022-10M1AS
NBU 1022-10O3BS
NBU 1022-10O2CS

Location: Township 10 South, Range 22 East, Section 10

Survey Date(s): April 20, 2009
April 21, 2009
May 6, 2009

Observer(s): SWCA Environmental Consultants, Inc.

Weather: April 20: 60-70° Fahrenheit, 0-5% cloud cover, wind speed 0-2 mph
April 21: 60-70° Fahrenheit, 0% cloud cover, wind speed 0-2 mph
May 6: 70° Fahrenheit, 10% cloud cover, wind speed 0-5 mph

PROPOSED PROJECT:

Anadarko proposes to upgrade an existing pipeline and construct gas wells NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O3BS, and NBU 1022-10O2CS in Township 10 South, Range 22 East and Section 10. The proposed gas wells are located west of Bonanza, Utah in the Book Cliffs Management Area of the BLM Vernal Field Office. The project area has been historically impacted by mineral extraction activities, transportation corridors, agricultural and ranching activities, livestock grazing, and erosion. There is currently well construction activity occurring within the project area. The pipeline has been rerouted to avoid *Sclerocactus* individuals. Maps of the proposed wells, pipeline upgrade, and pipeline reroute can be found in Appendix D.

PROJECT AREA DESCRIPTION:

The proposed project area is underlain by sedimentary deposits of the Green River Formation of Late Middle Eocene age at an elevation of approximately 5,100 feet. Soils in the project area are predominantly sand and silt. Topography in the project area consists of rolling, sometimes steep terrain with rock outcroppings and a wash. The slopes within the project area boundary range from 0 to 110 percent

The vegetation in the project area is a desert shrub community. For a complete list of common plants associated with the desert shrub community in the project area see Appendix A.

SURVEY METHODOLOGY:

In April and May of 2009, the Utah Department of Wildlife Resources website (http://dwrcdc.nr.utah.gov/ucdc/) and the Fish and Wildlife Service (http://www.fws.gov/mountain-prairie/endspp/countylists/utah.pdf) were reviewed for Uintah County. These sites contain the U.S. Fish and Wildlife Service list of threatened, endangered,

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

August 14, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

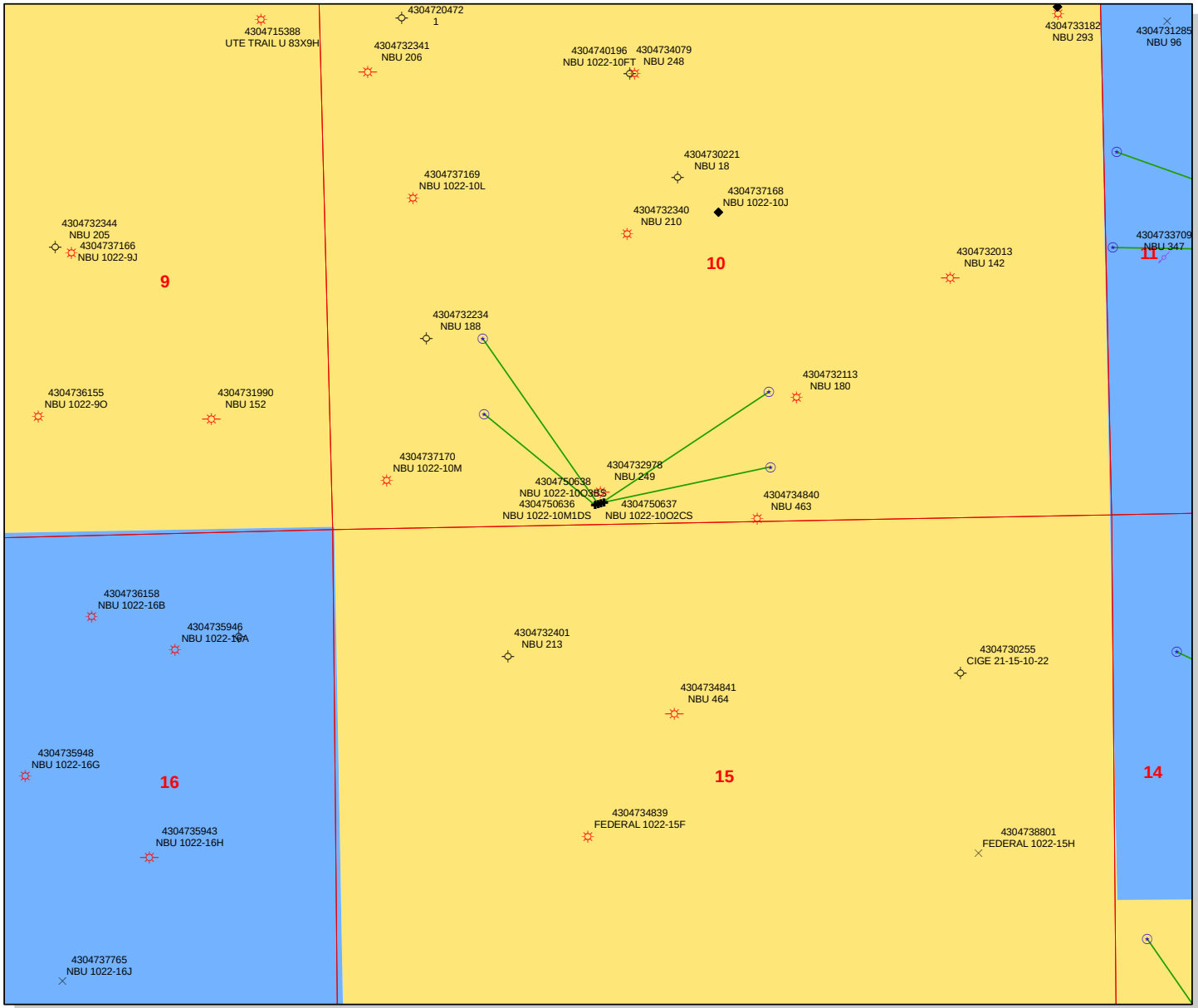
API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50631	NBU 920-21KT	Sec 21 T09S R20E 1834 FSL 2049 FWL
43-047-50632	NBU 920-21I	Sec 21 T09S R20E 2381 FSL 0645 FEL
43-047-50635	NBU 1022-10M1AS	Sec 10 T10S R22E 0173 FSL 1784 FWL BHL Sec 10 T10S R22E 1310 FSL 1030 FWL
43-047-50636	NBU 1022-10M1DS	Sec 10 T10S R22E 0167 FSL 1765 FWL BHL Sec 10 T10S R22E 0800 FSL 1030 FWL
43-047-50637	NBU 1022-10O2CS	Sec 10 T10S R22E 0180 FSL 1803 FWL BHL Sec 10 T10S R22E 0915 FSL 2310 FEL
43-047-50638	NBU 1022-10O3BS	Sec 10 T10S R22E 0187 FSL 1822 FWL BHL Sec 10 T10S R22E 0405 FSL 2310 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:8-14-09



API Number: 4304750635

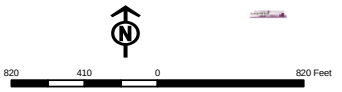
Well Name: NBU 1022-10M1AS

Township 10.0 S Range 22.0 E Section 10

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason



1:8,382

'APIWellNo:43047506350000'

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/13/2009 **API NO. ASSIGNED:** 43047506350000

WELL NAME: NBU 1022-10M1AS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SESW 10 100S 220E **Permit Tech Review:** ☑

SURFACE: 0173 FSL 1784 FWL **Engineering Review:** ☑

BOTTOM: 1310 FSL 1030 FWL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 39.95663 **LONGITUDE:** -109.42830

UTM SURF EASTINGS: 634252.00 **NORTHINGS:** 4423916.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 01196C **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☑ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: 460' fr u bdry & uncomm. tract

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:

1 - Exception Location - dmason
3 - Commingling - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 1022-10M1AS
API Well Number: 43047506350000
Lease Number: UTU 01196C
Surface Owner: FEDERAL
Approval Date: 9/1/2009

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Exception Location:
Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale

Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

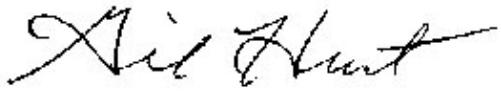
Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047506350000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01196C

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10M1AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506350000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0173 FSL 1784 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 8/31/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SPUD REPORT Date of Spud:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ DRILLING REPORT Report Date:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: August 31, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		8/30/2010

RECEIVED August 30, 2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources
Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047506350000

API: 43047506350000
Well Name: NBU 1022-10M1AS
Location: 0173 FSL 1784 FWL QTR SESW SEC 10 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 8/31/2009

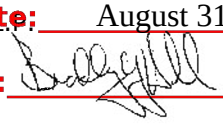
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 8/30/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: August 31, 2010

By: 

RECEIVED August 30, 2010

RECEIVED

AUG 25 2009

Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER	5. Lease Serial No. UTU01196C
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA Agreement, Name and No. 891008900A
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone	8. Lease Name and Well No. NBU 1022-10M1AS
2. Name of Operator KERRMCGEE OIL&GAS ONSHORE LP — Contact: DANIELLE E PIERNOT — Mail: Danielle.Piernot@anadarko.com	9. API Well No. 43 047 50635
3a. Address PO BOX 173779 DENVER, CO 80202-3779 — 3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156	10. Field and Pool, or Exploratory NATURAL BUTTES
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface SESW 173FSL 1784FWL 39.95672 N Lat, 109.42899 W Lon — At proposed prod. zone SWSW 1310FSL 1030FWL 39.95984 N Lat, 109.43168 W Lon	11. Sec., T., R., M., or Blk. and Survey or Area Sec 10 T10S R22E Mer SLB
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 25 MILES SOUTHEAST OF OURAY, UTAH	12. County or Parish UINTAH — 13. State UT
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1030 FEET — 16. No. of Acres in Lease 400.00	17. Spacing Unit dedicated to this well
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 510 FEET — 19. Proposed Depth 8949 MD 8630 TVD	20. BLM/BIA Bond No. on file WYB000291
21. Elevations (Show whether DF, KB, RT, GL, etc. 5094 GL — 22. Approximate date work will start 08/31/2009	23. Estimated duration 60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
(Electronic Submission)	DANIELLE E PIERNOT Ph: 720-929-6156	08/13/2009

Title: REGULATORY ANALYST

Approved by (Signature)	Name (Printed/Typed)	Date
	Jerry Kenczka	APR 07 2011
Title: Assistant Field Manager Lands & Mineral Resources	Office: VERNAL FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached. CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #73208 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by ROBIN R. HANSEN on 08/17/2009 ()

RECEIVED
APR 13 2011
DIV. OF OIL, GAS & MINING

NOTICE OF APPROVAL

UDOGM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

NOS 3-17-09

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr McGee Oil & Gas Onshore**	**Location:**	**SESW, Sec. 10, T10S, R22E**
Well No:	**NBU 1022-10M1AS**	**Lease No:**	**UTU-01196C**
API No:	**43-047-50635**	**Agreement:**	**Natural Buttes Unit**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.

- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

- During operations, if any vertebrate paleontological resources are discovered, in accordance with **Section 6 of Form 3100-11** and **43 CFR 3162.1**, all operations affecting such sites shall be immediately suspended, and all discoveries shall be left intact until authorized to proceed by the Authorized Officer. The appropriate Authorized Officer of the Vernal BLM office shall be notified within 48 hours of the discovery, an a decision as to the preferred alternative/course of action will be rendered.

- Kerr McGee will adhere to all applicant committed conservation measures and conservation recommendations that are stated in the USFWS's "Final Biological Opinion for the Anadarko Petroleum Corporation Natural Buttes Unit and Bonanza Area Natural Gas Development Project."

- The operator will follow the Green River District Reclamation Guidelines for reclamation.

- The operator will control noxious weeds along the well pad, access road, and the pipeline route by spraying or mechanical removal. On BLM administered land, a Pesticide Use Proposal (PUP) will be submitted and approved prior to the application of herbicides or pesticides or possibly hazardous chemicals.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- A Gama Ray Log shall be run from TD to surface

Variances Granted:

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01196C

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10M1AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506350000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0173 FSL 1784 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/15/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Pit Refurb

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drilling operations on the NBU 1022-10N pad are due to occur later in the year 2011. The request in this sundry will be applicable after drilling operations conclude on this pad. The approved pit for the NBU 1022-10N pad has not been constructed yet. Kerr-McGee Oil & Gas Onshore, LP is requesting to refurb the future (existing) pit on this multi-well pad for completion operations after drilling operations conclude. The refurb pit will be relined per the requirements in the COA's of the APD. Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize this pit as a staging pit to be utilized for other completion operations in the area. We plan to keep this pit open for 1 year. During this time the surrounding well location completion fluids will be recycled in this pit and utilized for other frac jobs in the surrounding sections.

Accepted by the Utah Division of Oil, Gas and Mining

Date: 06/22/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 6/15/2011

RECEIVED Jun. 15, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047506350000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

RECEIVED Jun. 15, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01196C

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10M1AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506350000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0173 FSL 1784 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 7/12/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ SPUD REPORT Date of Spud:	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 07/12/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 7/12/2011

RECEIVED Jul. 12, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047506350000

API: 43047506350000
Well Name: NBU 1022-10M1AS
Location: 0173 FSL 1784 FWL QTR SESW SEC 10 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 8/31/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Andy Lytle **Date:** 7/12/2011
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED Jul. 12, 2011

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 1022-10M1AS
Qtr/Qtr SESW Section 10 Township 10S Range 22E
Lease Serial Number UTU01196C
API Number 4304750635

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 08/22/2011 12:00 HRS AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

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DIV. OF OIL, GAS & MINING

Date/Time 09/09/2011 00:00 HRS AM ☐ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT 435.828.0986 OR LOVEL YOUNG AT 435.781.7051

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01196C

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10M1AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506350000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0173 FSL 1784 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 8/23/2011	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 08/23/2011 AT 1100 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 8/25/2011

RECEIVED Aug. 25, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750636	NBU 1022-10M1DS		SESW	10	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	8/23/2011			8/29/11	

Comments: MIRU PETE MARTIN BUCKET RIG. SPUD WELL ON 08/23/2011 AT 1500 HRS. WSMVD BHL= SWSW

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750635	NBU 1022-10M1AS		SESW	10	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	8/23/2011			8/29/11	

Comments: MIRU PETE MARTIN BUCKET RIG. SPUD WELL ON 08/23/2011 AT 1100 HRS. WSMVD BHL= SWSW

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750638	NBU 1021-10O3BS		SESW	10	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	8/22/2011			8/29/11	

Comments: MIRU PETE MARTIN BUCKET RIG. SPUD WELL ON 08/22/2011 AT 1300 HRS. WSMVD BHL= SWSE

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK
Name (Please Print)

Signature

REGULATORY ANALYST
Title

8/25/2011
Date

(5/2000)

RECEIVED
AUG 25 2011
DIV. OF OIL, GAS & MINING

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: **KERR-McGEE OIL & GAS ONSHORE, L.P.**

Well Name: **NBU 1022-10-M1AS**

Api No: **43-047-50635** Lease Type **FEDERAL**

Section **10** Township **10S** Range **22E** County **UINTAH**

Drilling Contractor **PROPETRO** RIG # **11**

SPUDDED:

Date **09/13/2011**

Time **10:00 AM**

How **ROTARY**

Drilling will Commence:

Reported by **BRAD**

Telephone # **(435) 790-5887**

Date 09/13/2011 Signed CHD

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01196C

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10M1AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506350000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0173 FSL 1784 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 9/16/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU AIR RIG ON SEPT 13, 2011. DRILLED SURFACE HOLE TO 2293'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 9/19/2011

RECEIVED Sep. 19, 2011

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# Ensign 139
Submitted By SID ARMSTRONG Phone Number 435- 828-0984
Well Name/Number NBU-1022- 10M1AS
Qtr/Qtr SE/SW Section 10 Township 10S Range 22E
Lease Serial Number UTU01196C
API Number 43-047-50635

Casing – Time casing run starts, not cementing times.

☐ Production Casing
☐ Other

Date/Time _ AM ☐ PM ☐

RECEIVED
OCT 2 5 2011
DIV. OF OIL, GAS & MINING

BOPE
☒ Initial BOPE test at surface casing point
☐ Other

Date/Time 10/25/2011 09:00 AM ☒ PM ☐

Rig Move
Location To: ___

Date/Time _____ _____ AM ☐ PM ☐

Remarks BE SKIDDING RIG TO NBU 1022-10M1AS & TESTING B.O.P'S

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# Ensign 139
Submitted By SID ARMSTRONG Phone Number 435- 828-0984
Well Name/Number NBU-1022- 10M1AS
Qtr/Qtr SE/SW Section 10 Township 10S Range 22E
Lease Serial Number UTU01196C
API Number 43-047-50635

Casing – Time casing run starts, not cementing times.

☒ Production Casing
☐ Other

Date/Time 10/30/2011 06:00 AM ☒ PM ☐

BOPE
☐ Initial BOPE test at surface casing point
☐ Other

Date/Time 10/25/2011 09:00 AM ☐ PM ☐

RECEIVED
NOV 01 2011
DIV. OF OIL, GAS & MINING

Rig Move
Location To: ___

Date/Time _____ _____ AM ☐ PM ☐

Remarks BE SKIDDING RIG TO NBU 1022-10M1DS & TESTING B.O.P'S MONDAY
10/31/2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 01196C

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1022-10M1AS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047506350000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0173 FSL 1784 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
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	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SPUD REPORT Date of Spud:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ DRILLING REPORT Report Date: 10/31/2011	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2293' TO 8865' ON OCT. 29, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 139 ON OCTOBER 31, 2011 @ 06:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE		**DATE**
N/A		10/31/2011

RECEIVED Oct. 31, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 01196C

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Gas Well

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FOOTAGES AT SURFACE:
0173 FSL 1784 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

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	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
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	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
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Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE		**DATE**
N/A		10/31/2011

RECEIVED Oct. 31, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

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7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

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FOOTAGES AT SURFACE: 0173 FSL 1784 FWL
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COUNTY: UINTAH

STATE: UTAH

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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 12/21/2011	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
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	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 12/21/2011 AT 1730 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 12/22/2011

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU01196C

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU63047A

2. Name of Operator KERR MCGEE OIL & GAS ONSHORE LP — Contact: JAIME L. SCHARNOWSKE — E-Mail: JAIME.SCHARNOWSKE@ANADARKO.COM

8. Lease Name and Well No. NBU 1022-10M1AS

3. Address PO BOX 173779 DENVER, CO 80217

3a. Phone No. (include area code) Ph: 720-929-6304

9. API Well No. 43-047-50635

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface SESW 173FSL 1784FWL 39.956716 N Lat, 109.428985 W Lon

At top prod interval reported below SWSW 1329FSL 1017FWL

At total depth SWSW 1313FSL 1044FWL BHL by HSM

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 10 T10S R22E Mer SLB

12. County or Parish UINTAH

13. State UT

14. Date Spudded 08/23/2011

15. Date T.D. Reached 10/29/2011

16. Date Completed ☐ D & A ☒ Ready to Prod. 12/21/2011

17. Elevations (DF, KB, RT, GL)* 5094 GL

18. Total Depth: MD 8865 TVD 8617

19. Plug Back T.D.: MD 8795 TVD 8547

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL/GR/COLLARS-BHV-SD/DSN/ACTR

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
12.250	9.625 J-55	40.0	0	2267		900		0	
7.875	4.500 I-80	11.6	0	8839		1646		1880	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	8262							

25. Producing Intervals

	Formation	Top	Bottom
A)	MESAVERDE	6878	8758
B)	WSMVD		
C)			
D)			

26. Perforation Record

Perforated Interval	Size	No. Holes	Perf. Status
6878 TO 8758	0.360	216	OPEN

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
6878 TO 8758	PUMP 12,047 BBLS SLICK H2O & 242,900 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/21/2011	01/06/2012	24	→	20.0	2023.0	277.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	354 SI	850.0	→	20	2023	277		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #130760 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RECEIVED
FEB 21 2012
DIV. OF OIL, GAS & MINING

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				GREEN RIVER	971
				BIRD'S NEST	1286
				MAHOGANY	1660
				WASATCH	4375
				MESAVERDE	6657

32. Additional remarks (include plugging procedure):
Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #130760 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,L, sent to the Vernal

Name *(please print)* JAIME L. SCHARNOWSKE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 02/13/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10M1AS YELLOW	Spud Conductor: 8/23/2011	Spud Date: 9/14/2011
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING	Start Date: 5/26/2011	End Date: 10/31/2011
Active Datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/13/2011	12:00 - 13:00	1.00	MIRU	01	B	P		DRESS CONDUCTOR, R/U FLOW NIPPLE & BLOOIE LINE, SPOT RIG & RIG UP
	13:00 - 0:00	11.00	MIRU	08	A	Z		RIG REPAIR, REPLACE ROTATION HYDRAULIC LINES IN DERRICK,WAIT ON PARTS, MAINTANCE RIG MOTOR, TOP DRIVE, RIG PUMP
9/14/2011	0:00 - 1:00	1.00	MIRU	08	B	Z		RIG REPAIR WORK ON FUEL FILTER HOUSING ON PUMP
	1:00 - 3:00	2.00	DRLSUR	02	B	P		SPUD 12.25 SURFACE HOLE 01:00 9/14/2011 DRILL F/ 40' TO 210'
	3:00 - 4:00	1.00	DRLSUR	06	A	P		TOOH
	4:00 - 5:30	1.50	DRLSUR	06	A	P		P/U DIR TOOLS, ORIENT MWD, TIH
	5:30 - 14:30	9.00	DRLSUR	02	D	P		DRILL 12.25" SURFACE HOLE F/ 210' TO 1100' 890' @ 98' HR.
	14:30 - 23:00	8.50	DRLSUR	08	A	Z		WORK ON MP FOUND CROSS HEAD BOLTS BROKE HAD TO CHANGE IT OUT WAIT ON MP FROM TOWN / MIRU MP.
	23:00 - 0:00	1.00	DRLSUR	02	B	P		DRILL 12.25" SURFACE HOLE F/ 1100' TO 1190' 90' @ 90' HR.
9/15/2011	0:00 - 4:30	4.50	DRLSUR	02	B	P		DRILL 12.25" SURFACE HOLE F/ 1190' TO 1430' 240" @ 53' HR
	4:30 - 0:00	19.50	DRLSUR	02	B	P		DRILL 12.25" SURFACE HOLE F/1430' TO 2293 863' @ 44' HR
9/16/2011	0:00 - 2:00	2.00	DRLSUR	05	C	P		CIRC & COND HOLE F/LD & 9 5/8" 40# SURF. CSG RUN
	2:00 - 4:30	2.50	DRLSUR	06	D	P		POOH FOR 40# J55 CASING. RUN
	4:30 - 6:30	2.00	DRLSUR	06	A	P		LAY DOWN BHA & DIR TOOLS
	6:30 - 7:30	1.00	DRLSUR	12	A	P		MOVE CATWALK AND PIPE RACKS,MOVE CSG OVER TO WORK AREA,R/U T/RUN 9 5/8" 40# SURF. CSG
	7:30 - 11:30	4.00	DRLSUR	12	C	P		HOLD SAFTEY MEETING,RUN FLOAT SHOE ,SHOE JNT,BAFFLE & 53 JNTS 9 5/8" 40# LT&C CSG W/THE SHOE SET @2252' & THE BAFFLE @2207
	11:30 - 12:00	0.50	DRLSUR	12	A	P		RUN 200' 1" PIPE DOWN ANNULUS,MOVE RIG OFF,INSTALL CEMENT HEAD,R/U PRO PETRO CEMENTERS
	12:00 - 15:00	3.00	DRLSUR	12	E	P		HOLD SAFETY MEETING. TEST LINES TO 2000 PSI. PUMP 40 BBLS OF 8.4# H20 AHEAD ,NO RETURNS PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. PUMP 345 SACKS / 70.6 BBLS 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE).DROP PLUG ON FLY AND DISPLACE W 167 BBLS OF 8.4# H20. LIFT PRESSURE WAS 170 PSI, BUMP PLUG AND HOLD 680 PSI FOR 5 MIN. FLOAT HELD, NO CEMENT TO SURFACE.
	15:00 - 16:00	1.00	DRLSUR					TOP OUT THRU 1" PIPE W/ 125 SKS 15.8 PPG,CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE, CEMENT TO SURF, NO CEMENT TO SURFACE.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10M1AS YELLOW	Spud Conductor: 8/23/2011	Spud Date: 9/14/2011
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING	Start Date: 5/26/2011	End Date: 10/31/2011
Active Datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:00 - 18:00	2.00	DRLSUR					TOP OUT DOWN BACK SIDE 3 TIMES W / 105 / 150 / 175 SKS 15.8 PPG,CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE, CEMENT TO SURF, NO CEMENT TO SURFACE. RELEASED RIG @ 18:00 9/16/2011
10/25/2011	6:00 - 7:00	1.00	DRLPRO	01	C	P		SKID RIG TO NBU 1022 10M1AS
	7:00 - 8:30	1.50	DRLPRO	14	A	P		N/U B.O.P'S
	8:30 - 10:30	2.00	DRLPRO	09	A	P		SLIP & CUT DRILL LINE
	10:30 - 13:30	3.00	DRLPRO	15	A	P		TEST B.O.P'S
	13:30 - 14:00	0.50	DRLPRO	14	B	P		SET WEAR BUSHING
	14:00 - 17:00	3.00	DRLPRO	06	A	P		P/U MOTOR - BIT - DIR TOOLS & T.I.H
	17:00 - 18:00	1.00	DRLPRO	07	B	P		LEVEL DERRICK OVER CENTER HOLE & INSTALL ROT HEAD
	18:00 - 19:30	1.50	DRLPRO	06	A	P		CONT T.I.H & TAG CEMENT @ 2143
	19:30 - 20:30	1.00	DRLPRO	02	F	P		DRILL SHOE TRACK
	20:30 - 0:00	3.50	DRLPRO	02	D	P		DIR DRILL F/ 2303 TO 2760 = 457 ' AVG 130.5 FPH ,WOB 18/20,RPM 40/126,STKS 112,GPM 549,PSI 1250/1500 TORQ 5/7K - SLIDE 55' @ 11% OF 457' FT DRILL - W/ RES WATER
10/26/2011	0:00 - 12:30	12.50	DRLPRO	02	D	P		DIR DRILL F/ 2760 TO 4390 =1630 ' AVG 130 FPH ,WOB 18/20,RPM 40/126,STKS 120,GPM 590,PSI 1350/1650 TORQ 5/7K - SLIDE 262' @ 16% - W/ RES WATER
	12:30 - 13:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DIR DRILL F/ 4390 TO 5620 =1230 ' AVG 112 FPH ,WOB 18/20,RPM 40/126,STKS 114,GPM 549,PSI 1500/1850 TORQ 6/9K - SLIDE ??' @ ??% - W/ RES WATER
10/27/2011	0:00 - 15:30	15.50	DRLPRO	02	D	P		DIR DRILL F/ 5620 TO 7017 =1397 ' AVG 91 FPH ,WOB 18/20,RPM 40/126,STKS 114,GPM 549,PSI 1500/1850 TORQ 6/9K - SLIDE 70' @5 %,LT MUD UP FOR VIS AT 6600'
	15:30 - 16:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DIR DRILL F/ 7017 TO 7440=423 ' AVG 52 FPH ,WOB 18/20,RPM 40/126,STKS 100,GPM 491,PSI 1600/1950 TORQ 8/11K - SLIDE 60 ' @14 %,MW 10.1/36 5% LCM
10/28/2011	0:00 - 14:30	14.50	DRLPRO	02	D	P		DIR DRILL F/ 7440 TO 8193=753 ' AVG 51 FPH ,WOB 18/20,RPM 40/126,STKS 100,GPM 491,PSI 1600/1950 TORQ 8/11K - SLIDE 90 ' @11%,MW 11.4/42 5% LCM
	14:30 - 15:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	15:00 - 0:00	9.00	DRLPRO	02	D	P		DIR DRILL F/ 8193 TO 8585 =392 ' AVG 43 FPH ,WOB 18/20,RPM 40/126,STKS 100,GPM 491,PSI 1600/1950 TORQ 8/11K - SLIDE 20 ' @1%,MW 11.7/42 5% LCM
10/29/2011	0:00 - 9:00	9.00	DRLPRO	02	D	P		DIR DRILL F/ 8585 TO TD @ 8865 =280 ' AVG 31 FPH ,WOB 20,RPM 40/126,STKS 96,GPM 450,PSI 2100/2400 TORQ 8/11K - SLIDE 0 ' @0%,MW 12.0/46 5% LCM
	9:00 - 10:00	1.00	DRLPRO	05	C	P		FLOW CK OK,FINAL SURVEY@ ,CIRC BTMS UP F/ WIPERTRIP TO SHOE

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Project: UTAH-UINTAH	Site: NBU 1022-10N PAD		Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING	Start Date: 5/26/2011		End Date: 10/31/2011
Active Datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	10:00 - 22:00	12.00	EVALPR	06	E	P		WIPER TRIP TO SHOE F/ TRIPLE COMBO,PUMP OUT 5 STDS 80K OVER,TIGHT SPOT 8420',TIH BREAK CIRC @6100
	22:00 - 0:00	2.00	EVALPR	05	C	P		CIRC BTMS UP TWICE F/ TOOH AND LOG,15' FLARE 15 MIN,2450 UNITS
10/30/2011	0:00 - 7:30	7.50	EVALPR	06	A	P		TOOH F/ LOGS
	7:30 - 8:00	0.50	EVALPR	14	B	P		PULL WEARRING
	8:00 - 12:30	4.50	EVALPR	11	D	P		RUN TRIPLE COMBO TO LOGGERS DEPTH OF 8859 ,DRILLER 8865'
	12:30 - 22:00	9.50	CSG	12	C	P		RUN 4.5 I-80 #11.6 BTC,209 JTS & 2 MARKERS TO SHOE 8852,FC 8810,MARKERS 6698/4486
	22:00 - 23:00	1.00	CSG	05	D	P		CIRC BTMS UP F/CEMENT,NO FLARE
	23:00 - 0:00	1.00	CSG	12	E	P		PUMP 20SX SCAV, 556 SX LEAD@12.3# 2.12YLD,TAIL 1090SX 14.3 1.31 YLD,DISPLACE 137 BBL,FINALLIFT 2550 PSI,BUMPPLUG 500 OVER,FLOATS HELD,25 BBLS GOOD LEAD TO RES PIT
10/31/2011	0:00 - 2:00	2.00	CSG	12	E	P		FINALLIFT 2550,BUMPPLUG,FLOATS HELD,25BBLS GOOD LEAD TO RES PIT,FLUSH STACK
	2:00 - 3:00	1.00	RDMO	14	A	S		PICK UP BOP,SET CSG SLIPS UNDER @ 80K,RUFF CUT CSG
	3:00 - 6:00	3.00	RDMO	01	E	P		CLEAN PITS,PREP F/ SKID,RIG RELEASE @ 06:00 10/31/2011 TO NBU 1022-10M1DS

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-10M1AS YELLOW	**Wellbore No.**	OH
Well Name	NBU 1022-10M1AS	**Wellbore Name**	NBU 1022-10M1AS
Report No.	1	**Report Date**	11/29/2011
Project	UTAH-UINTAH	**Site**	NBU 1022-10N PAD
Rig Name/No.		**Event**	COMPLETION
Start Date	12/20/2011	**End Date**	12/21/2011
Spud Date	9/14/2011	**Active Datum**	RKB @5,108.00usft (above Mean Sea Level)
UWI	SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0		

1.3 General

Contractor	CASED HOLE SOLUTIONS	**Job Method**	PERFORATE	**Supervisor**	ED GUDAC
Perforated Assembly	PRODUCTION CASING	**Conveyed Method**	WIRELINE		

1.4 Initial Conditions

Fluid Type		**Fluid Density**	
Surface Press		**Estimate Res Press**	
TVD Fluid Top		**Fluid Head**	
Hydrostatic Press		**Press Difference**	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	6,878.0 (usft)-8,758.0 (usft	**Start Date/Time**	12/8/2011 12:00AM
No. of Intervals	28	**End Date/Time**	12/8/2011 12:00AM
Total Shots	216	**Net Perforation Interval**	56.00 (usft)
Avg Shot Density	3.86 (shot/ft)	**Final Surface Pressure**	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/8/2011 12:00AM	MESAVERDE/			6,878.0	6,880.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

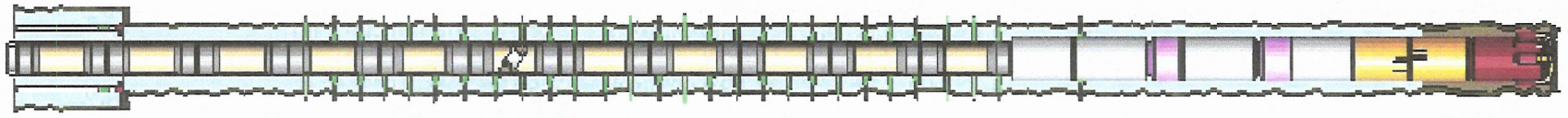
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/8/2011 12:00AM	MESAVERDE/			7,001.0	7,005.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,072.0	7,074.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,089.0	7,090.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,107.0	7,109.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,142.0	7,143.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,282.0	7,288.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,483.0	7,484.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,535.0	7,540.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,652.0	7,654.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,673.0	7,674.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,842.0	7,843.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,875.0	7,877.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			7,982.0	7,983.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,040.0	8,043.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,084.0	8,086.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,156.0	8,159.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,204.0	8,205.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,240.0	8,243.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,251.0	8,252.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,296.0	8,297.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,396.0	8,397.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/8/2011 12:00AM	MESAVERDE/			8,420.0	8,422.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,454.0	8,456.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,620.0	8,622.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,699.0	8,700.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,712.0	8,714.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12/8/2011 12:00AM	MESAVERDE/			8,757.0	8,758.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION

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Well: NBU 1022-10M1AS YELLOW	Spud Conductor: 8/23/2011	Spud Date: 9/14/2011	
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD		Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 12/20/2011		End Date: 12/21/2011
Active Datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/29/2011	12:00 - 17:00	5.00	WO/REP	30		P		MOVE DIRT MOUND AROUND W/H'S W/ GRADER MOVE IN & RU RIG ND FRAC VALVES NU BOPS RU FLOOR & TUBING EQUIP PU BIT SEALED BEARING BIT WOULDNT GO THRU WELLHEAD FINALY TRIED ROCK BIT WENT OK PU 180 JNTS SIW SDFN
11/30/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= REV CIRC
	7:15 - 17:00	9.75	WO/REP	30		P		SIWP= 0 PSI CONTINUE TO PU TUBING TAG FILL @ 8790' RU PWR SWVL & DRILL HEAD EST CIRC C/O & DRILL TO 8810' CIRC CLEAN RD DRILLING EQUIP POOH LD TUBING LD BHA RD FLOOR & TUBING EQUIP ND BOPS NU FRAC VALVES FILL HOLE W/ TMAC RD RIG MOVE TO NBU 1022-10O2CS RU RIG START PU TUBING SIW SDFN
12/2/2011	8:00 - 9:45	1.75	COMP	33		P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 7 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 50 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 56 PSI. NO COMMUNICATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFW
12/12/2011	7:45 - 8:00	0.25	COMP	48		P		HSM. HIGH PSI LINES & WIRE LINE AWAIRNESS.
	8:00 - 18:00	10.00	COMP	36	B	P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER DESIGN. POOH, X-OVER FOR FRAC CREW. FRAC STG 1)PSI TEST LINES T/ 8000 PSI. HELD FOR 15 MIN. LOST 2830 PSI. NO VISABLE LEAKS. SET MECH POP-OFF T/ WHP 907 PSI, BRK 3892 PSI @ 4.5 BPM. ISIP 2700 PSI, FG .75. CALC HOLES OPEN @ 39.3 BPM @ 5587 PSI = 66% HOLES OPEN. ISIP 2732 PSI, FG .75, NPI 32 PSI. MP 6320 PSI, MR 52 BPM, AP 5762 PSI, AR 50 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L. PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8486' PU PERF AS PER DESIGN. POOH. SWIFN.

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Project: UTAH-UINTAH	Site: NBU 1022-10N PAD		Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 12/20/2011		End Date: 12/21/2011
Active Datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/13/2011	7:00 - 18:00	11.00		36	B	P		FRAC STG 2)WHP 1788 PSI, BRK 3080 PSI @ 4.3 BPM. ISIP 2150 PSI, FG .70. CALC HOLES OPEN @ 49.5 BPM @ 6018 PSI = 72% HOLES OPEN. ISIP 2725 PSI, FG .76, NPI 575 PSI. MP 6279 PSI, MR 50.2 BPM, AP 5172 PSI, AR 50.0 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8282' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 3)WHP 2515 PSI, BRK 4086 PSI @ 4.5 BPM. ISIP 2837 PSI, FG .78. CALC HOLES OPEN @ 50.0 BPM @ 5381 PSI = 100% HOLES OPEN. ISIP 2905 PSI, FG .79, NPI 68 PSI. MP 6278 PSI, MR 50.2 BPM, AP 5080 PSI, AR 50.0 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8116' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 4)WHP 2530 PSI, BRK 3171 PSI @ 3.9 BPM. ISIP 2624 PSI, FG .77 CALC HOLES OPEN @ 42.1 BPM @ 5854 PSI = 65% HOLES OPEN. ISIP 3024 PSI, FG .82, NPI 400 PSI. MP 6401 PSI, MR 47.5 BPM, AP 6168 PSI, AR 45.2 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7907' P/U PERF AS PER PERF DESIGN. POOH. SWIFN
12/14/2011	-							

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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	8:30 - 18:00	9.50	COMP	36	B	P		PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7907' P/U PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW. FRAC STG 5)WHP 1740 PSI, BRK 4994 PSI @ 4.5 BPM. ISIP 2485 PSI, FG .76. CALC HOLES OPEN @ 38.5 BPM @ 5106 PSI = 67% HOLES OPEN. ISIP 2839 PSI, FG .80, NPI 354 PSI. MP 6242 PSI, MR 39.3 BPM, AP 5159 PSI, AR 38.7 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L. PERF STG 6) PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7570' P/U PERF AS PER DESIGN. POOH. X-OVER FRAC CREW. FRAC STG 6)WHP 1600 PSI, BRK 3251 PSI @ 3.9 BPM. ISIP 2066 PSI, FG .71. CALC HOLES OPEN @ 39.3 BPM @ 5615 PSI = 60% HOLES OPEN. ISIP 3044 PSI, FG .84, NPI 978 PSI. MP 6121 PSI, MR 39.3 BPM, AP 4905 PSI, AR 38.5 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7318' P/U PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW. FRAC STG 7)WHP 1850 PSI, BRK 6371 PSI @ 4.6 BPM. ISIP 2026 PSI, FG .72. CALC HOLES OPEN @ 38.7 BPM @ 6068 PSI = 60% HOLES OPEN. ISIP 2902 PSI, FG .84, NPI 876 PSI. MP 6483 PSI, MR 39.3 BPM, AP 5740 PSI, AR 38.5 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L PERF STG 8)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7173' P/U PERF AS PER DESIGN. POOH. SWFN.

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Active Datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/15/2011	8:30 - 15:00	6.50	COMP	36	B	P		FRAC STG 8)WHP 677 PSI, BRK 2677 PSI @ 2.7 BPM. ISIP 1736 PSI, FG .68. CALC HOLES OPEN @ 39.2 BPM @ 4826 PSI = 60% HOLES OPEN. ISIP 2422 PSI, FG .78, NPI 686 PSI. MP 5516 PSI, MR 39.4 BPM, AP 4374 PSI, AR 39 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L PERF STG 9)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7035' P/U PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW. FRAC STG 9)WHP 480 PSI, BRK 2540 PSI @ 4.5 BPM. ISIP 1759 PSI, FG .69. CALC HOLES OPEN @ 39.3 BPM @ 5190 PSI = 60% HOLES OPEN. ISIP 2455 PSI, FG .79, NPI 696 PSI. MP 5943 PSI, MR 39.3 BPM, AP 4113 PSI, AR 38.8 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 6828'. POOH. SWI. TOTAL SAND = 242,900 LBS TOTAL CLFL = 12,047 BBLS
12/20/2011	13:00 - 17:00	4.00	COMP	30		P		MIRU ND W/H NU BOPS RU FLOOR & TUBING EQUIP TALLEY & PU 150 JNTS SIW SDFN
12/21/2011	7:00 - 7:15	0.25	COMP	48		P		JSA= WELL PRESS

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10M1AS YELLOW	Spud Conductor: 8/23/2011	Spud Date: 9/14/2011
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 12/20/2011	End Date: 12/21/2011
Active Datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	COMP	30		P		SIWP= 0 PSI CONTINUE TO TALLEY & PU TUBING TAG PLUG @ 6828' RU PWR SWVL & DRILLING HEAD EST CIRC W/ RIG PUMP. PLUG #1] DRILL THRU HALLI 8K CBP @ 6828' IN 10 MIN W/ 0# INCREASE (LOST CIRC) PLUG #2] CONTINUE TO RIH TAG SAND @ 7002' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7032' IN 8 MIN W/ 0# INCREASE (NO RETURNS) PLUG #3] CONTINUE TO RIH TAG SAND @ 7145' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7170' IN 8 MIN W/ 0# INCREASE (GETTING RETURNS) PLUG #4] CONTINUE TO RIH TAG SAND @ 7292' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7322' IN 10 MIN W/ 100# INCREASE PLUG #5] CONTINUE TO RIH TAG SAND @ 7877' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7576' IN 5 MIN W/ 350# INCREASE PLUG #6] CONTINUE TO RIH TAG SAND @ 7877' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7902' IN 9 MIN W/ 300# INCREASE PLUG #7] CONTINUE TO RIH TAG SAND @8087' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8112' IN 10 MIN W/ 150# INCREASE PLUG #8] CONTINUE TO RIH TAG SAND @8250' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8280' IN 8 MIN W/ 200# INCREASE PLUG#9] CONTINUE TO RIH TAG SAND @ 8456' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8486' IN 11 MIN W/ 150# INCREASE. CONTINUE TO RIH TAG SAND @ 8780' (10' FILL) C/O & DRILL TO PBTD @ 8790' CIRC CLEAN RD PWR SWVL POOH LD 17 JNTS LAND TUBING ON HNGR W/ 260 JNTS EOT @ 8262.45' RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD DROP BALL PUMP OFF BIT SUB @ 3000# SIW 30 MINUTES ALLOW BIT TO FALL TURN WELL OVER TO FBC TOTAL PUMPED=12047 BBLS RIG REC= 2147 BBLS LEFT TO REC= 9900 BBLS LANDING DETAIL: K.B.....14.00 HANGER.....86 260 JNTS L-80 2-3/8" 8245.39

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10M1AS YELLOW	Spud Conductor: 8/23/2011	Spud Date: 9/14/2011	
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD		Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 12/20/2011		End Date: 12/21/2011
Active Datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								POBS.....2.20 EOT= .....8262.45 CTAP BROUGHT= 283 JNTS , 260 IN WELL, RETURNED 23 JNTS
	17:30 -		PROD	50				WELL TURNED TO SALES @ 1730 HR ON 12/21/2011 - 390 MCFD, 2400 BWPD, FCP 2050#, FTP 1525#, 20/64" CK
1/6/2012	7:00 -		PROD	50				WELL IP'D ON 1/6/12 - 2023 MCFD, 20 BOPD, 277 BWPD, CP 850 #, FTP 354#, CK 20/64", LP 123#, 24 HRS

Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10N PAD
Well: NBU 1022-10M1AS
Wellbore: OH
Design: PLAN #1 PRODUCTION

Anadarko Petroleum Corporation

WELL DETAILS: NBU 1022-10M1AS

GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)

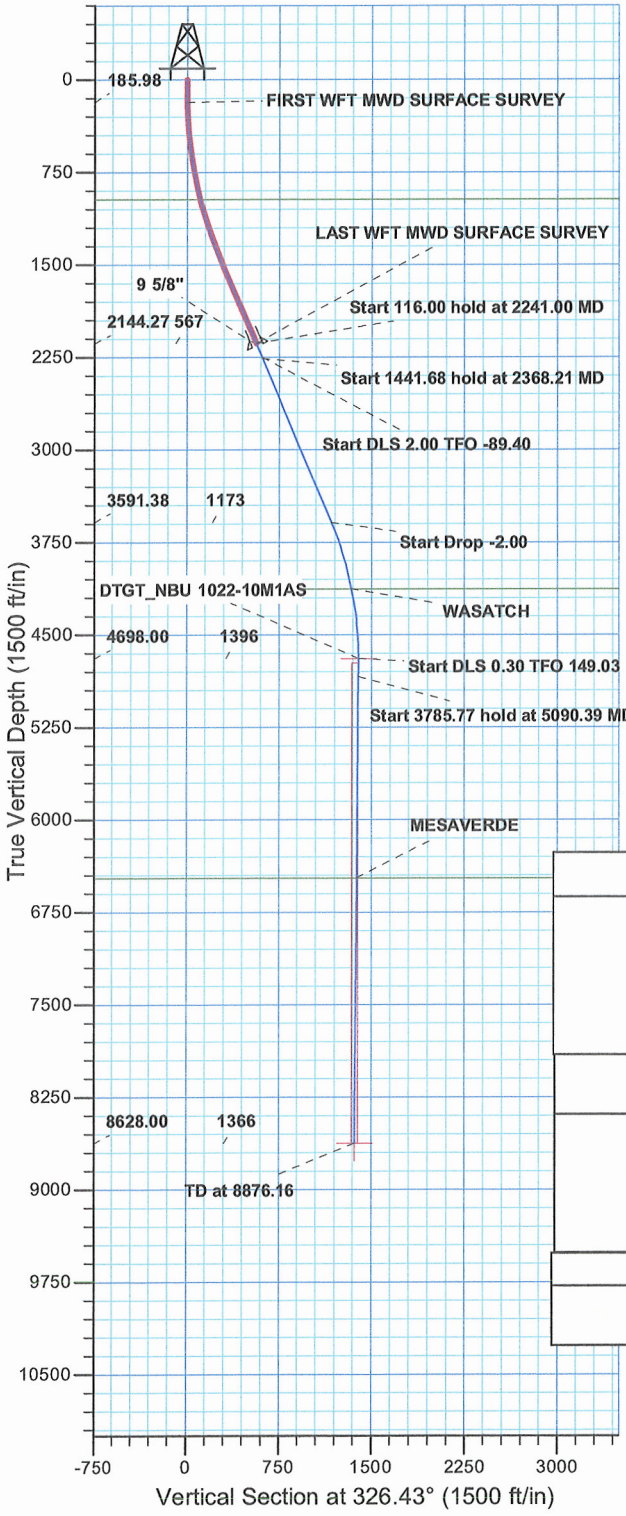
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14514175.83	2080870.83	39° 57' 24.300 N	109° 25' 41.891 W

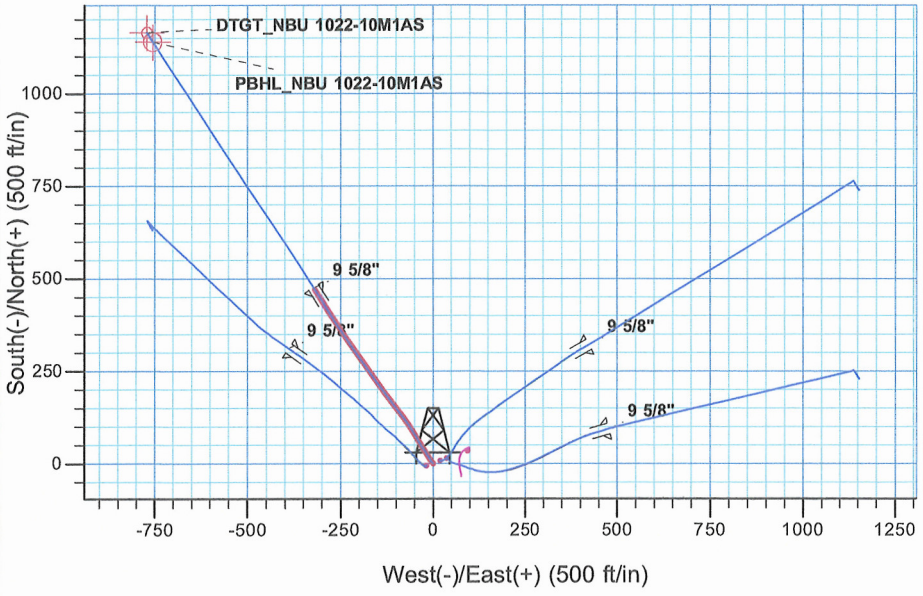
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
DTGT	4698.00	1163.54	-770.65	14515325.61	2080079.80	39° 57' 35.801 N	109° 25' 51.789 W	Circle (Radius: 15.00)
	- plan hits target center							
PBHL	8628.00	1138.54	-755.65	14515300.88	2080095.24	39° 57' 35.554 N	109° 25' 51.596 W	Circle (Radius: 25.00)
	- plan hits target center							

Azimuths to True North
Magnetic North: 11.00°

Magnetic Field
Strength: 52286.4snT
Dip Angle: 65.84°
Date: 2011/09/26
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
2241.00	22.72	327.45	2144.27	469.56	-318.30	0.00	0.00	567.25	
2357.00	22.72	327.45	2251.27	507.33	-342.40	0.00	0.00	612.04	
2368.21	22.72	326.87	2261.60	510.96	-344.75	2.00	-89.40	616.37	
3809.88	22.72	326.87	3591.38	977.33	-649.12	0.00	0.00	1173.25	
4946.06	0.00	0.00	4698.00	1163.54	-770.65	2.00	180.00	1395.61	DTGT_NBU 1022-10M1AS
5090.39	0.43	149.03	4842.33	1163.07	-770.37	0.30	149.03	1395.06	
8876.16	0.43	149.03	8628.00	1138.54	-755.65	0.00	0.00	1366.48	PBHL_NBU 1022-10M1AS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 10 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
971.00	980.19	GREEN RIVER
4133.00	4377.33	WASATCH
6475.00	6723.10	MESAVERDE

CASING DETAILS

TVD	MD	Name	Size
2159.03	2257.00	9 5/8"	9.625

Plan: PLAN #1 PRODUCTION (NBU 1022-10M1AS/OH)
Created By: RobertScott Date: 10:41, September 26 2011

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 1022-10N PAD
NBU 1022-10M1AS

OH

Design: OH

Standard Survey Report

16 December, 2011

Anadarko
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1022-10M1AS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	**MD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-10M1AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 1022-10N PAD, SECTION 10 T10S R22E				
Site Position:		**Northing:**	14,514,189.75 usft	**Latitude:**	39° 57' 24.431 N
From:	Lat/Long	**Easting:**	2,080,908.25 usft	**Longitude:**	109° 25' 41.407 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.01 °

Well	NBU 1022-10M1AS, 173' FSL 1784' FWL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,514,175.84 usft	**Latitude:**	39° 57' 24.300 N
	+E/-W	0.00 ft	**Easting:**	2,080,870.82 usft	**Longitude:**	109° 25' 41.891 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,094.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	2011/09/26	11.00	65.84	52,286

Design	OH					
Audit Notes:						
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**		0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**		
	0.00	0.00	0.00	325.87		

Survey Program	**Date** 2011/12/16		
From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
10.00	2,241.00	Survey #1 WFT MWD SURFACE (OH)	MWD	MWD - Standard
2,340.00	8,865.00	Survey #2 SDI MWD PRODUCTION (OH	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
186.00	1.65	294.91	185.98	1.07	-2.30	2.17	0.94	0.94	0.00
FIRST WFT MWD SURFACE SURVEY									
272.00	2.54	326.55	271.92	3.18	-4.47	5.14	1.66	1.03	36.79
358.00	3.84	329.11	357.78	7.24	-7.00	9.92	1.52	1.51	2.98
448.00	5.56	327.68	447.48	13.51	-10.88	17.29	1.92	1.91	-1.59
538.00	6.75	328.93	536.96	21.73	-15.94	26.93	1.33	1.32	1.39
628.00	8.63	329.55	626.15	32.08	-22.09	38.95	2.09	2.09	0.69
718.00	10.25	328.80	714.92	44.75	-29.66	53.69	1.81	1.80	-0.83

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1022-10M1AS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	**MD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-10M1AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
808.00	11.56	328.55	803.30	59.29	-38.52	70.69	1.46	1.46	-0.28
898.00	13.13	328.80	891.21	75.73	-48.52	89.91	1.75	1.74	0.28
988.00	14.75	326.55	978.56	94.04	-60.13	111.58	1.90	1.80	-2.50
1,078.00	16.04	325.06	1,065.33	113.79	-73.57	135.47	1.50	1.43	-1.66
1,168.00	18.00	323.55	1,151.38	135.17	-88.95	161.80	2.23	2.18	-1.68
1,258.00	19.44	322.68	1,236.62	158.27	-106.29	190.65	1.63	1.60	-0.97
1,348.00	20.44	321.93	1,321.22	182.55	-125.06	221.28	1.15	1.11	-0.83
1,438.00	20.75	324.43	1,405.47	207.89	-144.03	252.89	1.04	0.34	2.78
1,528.00	22.63	325.05	1,489.10	235.05	-163.22	286.15	2.10	2.09	0.69
1,618.00	23.65	325.05	1,571.86	264.04	-183.48	321.51	1.13	1.13	0.00
1,708.00	23.00	323.93	1,654.50	293.05	-204.18	357.14	0.87	-0.72	-1.24
1,798.00	23.69	326.18	1,737.13	322.29	-224.59	392.79	1.25	0.77	2.50
1,888.00	23.63	327.43	1,819.57	352.51	-244.37	428.90	0.56	-0.07	1.39
1,978.00	23.81	326.43	1,901.97	382.84	-264.12	465.10	0.49	0.20	-1.11
2,068.00	22.56	328.68	1,984.70	412.73	-283.14	500.51	1.70	-1.39	2.50
2,158.00	22.81	328.43	2,067.74	442.34	-301.25	535.18	0.30	0.28	-0.28
2,241.00	22.72	327.45	2,144.27	469.56	-318.30	567.28	0.47	-0.11	-1.18
LAST WFT MWD SURFACE SURVEY									
2,340.00	21.97	324.04	2,235.84	500.67	-339.46	604.90	1.51	-0.76	-3.44
FIRST SDI MWD PRODUCTION SURVEY									
2,430.00	22.70	322.49	2,319.09	528.07	-359.92	639.06	1.04	0.81	-1.72
2,521.00	22.31	322.25	2,403.16	555.66	-381.19	673.83	0.44	-0.43	-0.26
2,611.00	22.74	321.52	2,486.29	582.78	-402.47	708.22	0.57	0.48	-0.81
2,702.00	23.72	322.04	2,569.91	610.98	-424.67	744.02	1.10	1.08	0.57
2,792.00	23.88	323.34	2,652.26	639.87	-446.68	780.28	0.61	0.18	1.44
2,883.00	23.98	324.62	2,735.44	669.72	-468.39	817.17	0.58	0.11	1.41
2,973.00	24.41	325.99	2,817.53	700.05	-489.38	854.06	0.79	0.48	1.52
3,064.00	23.65	326.20	2,900.65	730.80	-510.05	891.11	0.84	-0.84	0.23
3,154.00	23.58	327.94	2,983.11	761.06	-529.65	927.15	0.78	-0.08	1.93
3,245.00	23.91	328.35	3,066.41	792.18	-548.99	963.77	0.41	0.36	0.45
3,335.00	24.15	326.73	3,148.61	823.10	-568.66	1,000.40	0.78	0.27	-1.80
3,426.00	23.81	326.55	3,231.75	853.99	-589.00	1,037.38	0.38	-0.37	-0.20
3,516.00	22.98	326.61	3,314.35	883.82	-608.68	1,073.11	0.92	-0.92	0.07
3,607.00	21.97	327.88	3,398.44	913.07	-627.51	1,107.89	1.23	-1.11	1.40
3,697.00	21.57	330.11	3,482.02	941.67	-644.70	1,141.21	1.02	-0.44	2.48
3,788.00	20.27	329.14	3,567.02	969.71	-661.12	1,173.63	1.48	-1.43	-1.07
3,879.00	18.47	329.65	3,652.87	995.68	-676.49	1,203.75	1.99	-1.98	0.56
3,970.00	16.39	325.35	3,739.69	1,018.69	-691.08	1,230.98	2.69	-2.29	-4.73
4,060.00	16.59	326.98	3,825.99	1,039.90	-705.30	1,256.52	0.56	0.22	1.81
4,151.00	15.02	328.13	3,913.54	1,060.81	-718.61	1,281.30	1.76	-1.73	1.26
4,241.00	13.13	328.32	4,000.84	1,079.42	-730.13	1,303.16	2.10	-2.10	0.21
4,332.00	11.14	328.67	4,089.80	1,095.72	-740.13	1,322.27	2.19	-2.19	0.38
4,422.00	10.08	327.38	4,178.26	1,109.79	-748.90	1,338.83	1.21	-1.18	-1.43

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1022-10M1AS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	**MD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-10M1AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,513.00	8.82	327.05	4,268.02	1,122.35	-756.99	1,353.77	1.39	-1.38	-0.36
4,603.00	7.74	327.93	4,357.08	1,133.27	-763.96	1,366.72	1.21	-1.20	0.98
4,694.00	6.20	330.84	4,447.41	1,142.76	-769.61	1,377.74	1.74	-1.69	3.20
4,784.00	3.66	330.08	4,537.07	1,149.49	-773.41	1,385.45	2.82	-2.82	-0.84
4,875.00	1.82	339.86	4,627.96	1,153.37	-775.36	1,389.75	2.08	-2.02	10.75
4,966.00	0.79	6.22	4,718.94	1,155.35	-775.78	1,391.63	1.28	-1.13	28.97
5,056.00	0.86	29.99	4,808.93	1,156.55	-775.38	1,392.40	0.39	0.08	26.41
5,147.00	0.61	7.83	4,899.92	1,157.62	-774.97	1,393.06	0.41	-0.27	-24.35
5,237.00	0.89	13.31	4,989.91	1,158.78	-774.75	1,393.88	0.32	0.31	6.09
5,328.00	0.86	348.27	5,080.90	1,160.13	-774.72	1,394.99	0.42	-0.03	-27.52
5,418.00	0.70	345.50	5,170.90	1,161.33	-775.00	1,396.14	0.18	-0.18	-3.08
5,509.00	0.83	341.31	5,261.89	1,162.49	-775.35	1,397.30	0.16	0.14	-4.60
5,599.00	0.84	345.35	5,351.88	1,163.74	-775.72	1,398.55	0.07	0.01	4.49
5,690.00	0.74	337.50	5,442.87	1,164.93	-776.12	1,399.75	0.16	-0.11	-8.63
5,781.00	0.46	52.84	5,533.86	1,165.70	-776.05	1,400.34	0.84	-0.31	82.79
5,871.00	0.64	67.95	5,623.86	1,166.10	-775.30	1,400.26	0.26	0.20	16.79
5,962.00	0.57	68.63	5,714.86	1,166.46	-774.40	1,400.05	0.08	-0.08	0.75
6,052.00	0.49	114.41	5,804.85	1,166.46	-773.64	1,399.63	0.47	-0.09	50.87
6,143.00	0.60	118.71	5,895.85	1,166.07	-772.87	1,398.87	0.13	0.12	4.73
6,233.00	0.91	115.37	5,985.84	1,165.54	-771.81	1,397.83	0.35	0.34	-3.71
6,323.00	0.64	99.48	6,075.83	1,165.15	-770.66	1,396.87	0.38	-0.30	-17.66
6,414.00	0.61	116.65	6,166.83	1,164.85	-769.73	1,396.10	0.21	-0.03	18.87
6,505.00	1.12	172.34	6,257.82	1,163.75	-769.18	1,394.88	1.02	0.56	61.20
6,595.00	1.11	164.18	6,347.80	1,162.04	-768.82	1,393.26	0.18	-0.01	-9.07
6,686.00	1.54	163.82	6,438.78	1,160.02	-768.24	1,391.26	0.47	0.47	-0.40
6,776.00	1.09	160.72	6,528.75	1,158.05	-767.62	1,389.29	0.51	-0.50	-3.44
6,867.00	1.29	174.94	6,619.73	1,156.21	-767.25	1,387.55	0.39	0.22	15.63
6,957.00	1.37	152.02	6,709.71	1,154.25	-766.65	1,385.60	0.59	0.09	-25.47
7,048.00	1.16	157.04	6,800.69	1,152.44	-765.78	1,383.61	0.26	-0.23	5.52
7,138.00	0.62	142.23	6,890.68	1,151.22	-765.13	1,382.23	0.65	-0.60	-16.46
7,229.00	1.31	155.16	6,981.66	1,149.89	-764.39	1,380.72	0.79	0.76	14.21
7,319.00	1.12	155.70	7,071.64	1,148.15	-763.60	1,378.83	0.21	-0.21	0.60
7,409.00	0.93	191.87	7,161.63	1,146.64	-763.39	1,377.46	0.73	-0.21	40.19
7,500.00	1.28	178.04	7,252.61	1,144.90	-763.50	1,376.09	0.48	0.38	-15.20
7,591.00	1.47	176.75	7,343.59	1,142.72	-763.40	1,374.22	0.21	0.21	-1.42
7,681.00	1.15	165.81	7,433.56	1,140.69	-763.11	1,372.39	0.45	-0.36	-12.16
7,772.00	0.80	135.23	7,524.55	1,139.35	-762.44	1,370.90	0.68	-0.38	-33.60
7,862.00	0.94	137.55	7,614.54	1,138.36	-761.50	1,369.55	0.16	0.16	2.58
7,953.00	1.16	108.69	7,705.52	1,137.51	-760.13	1,368.08	0.62	0.24	-31.71
8,043.00	1.07	119.91	7,795.51	1,136.80	-758.53	1,366.60	0.26	-0.10	12.47
8,133.00	0.53	108.77	7,885.50	1,136.25	-757.41	1,365.51	0.62	-0.60	-12.38
8,224.00	0.81	82.83	7,976.49	1,136.20	-756.38	1,364.89	0.45	0.31	-28.51
8,315.00	1.21	97.26	8,067.48	1,136.15	-754.78	1,363.96	0.52	0.44	15.86
8,405.00	1.50	91.26	8,157.45	1,136.01	-752.66	1,362.65	0.36	0.32	-6.67

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1022-10M1AS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	**MD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-10M1AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,496.00	1.43	84.72	8,248.42	1,136.09	-750.34	1,361.41	0.20	-0.08	-7.19
8,586.00	1.58	62.08	8,338.39	1,136.77	-748.13	1,360.73	0.68	0.17	-25.16
8,676.00	1.79	48.11	8,428.35	1,138.29	-745.99	1,360.79	0.51	0.23	-15.52
8,767.00	1.87	76.05	8,519.31	1,139.60	-743.49	1,360.47	0.97	0.09	30.70
8,806.00	1.93	80.41	8,558.29	1,139.86	-742.22	1,359.98	0.40	0.15	11.18
LAST SDI MWD PRODUCTION SURVEY									
8,865.00	1.93	80.41	8,617.25	1,140.19	-740.26	1,359.15	0.00	0.00	0.00
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
186.00	185.98	1.07	-2.30	FIRST WFT MWD SURFACE SURVEY
2,241.00	2,144.27	469.56	-318.30	LAST WFT MWD SURFACE SURVEY
2,340.00	2,235.84	500.67	-339.46	FIRST SDI MWD PRODUCTION SURVEY
8,806.00	8,558.29	1,139.86	-742.22	LAST SDI MWD PRODUCTION SURVEY
8,865.00	8,617.25	1,140.19	-740.26	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 1022-10N PAD
NBU 1022-10M1AS

OH

Design: OH

Survey Report - Geographic

16 December, 2011

Anadarko
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1022-10M1AS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	**MD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-10M1AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 1022-10N PAD, SECTION 10 T10S R22E				
Site Position:		**Northing:**	14,514,189.75 usft	**Latitude:**	39° 57' 24.431 N
From:	Lat/Long	**Easting:**	2,080,908.25 usft	**Longitude:**	109° 25' 41.407 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.01 °

Well	NBU 1022-10M1AS, 173' FSL 1784' FWL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,514,175.84 usft	**Latitude:**	39° 57' 24.300 N
	+E/-W	0.00 ft	**Easting:**	2,080,870.82 usft	**Longitude:**	109° 25' 41.891 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,094.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	2011/09/26	11.00	65.84	52,286

Design	OH				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	325.87	

Survey Program **Date** 2011/12/16

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
10.00	2,241.00	Survey #1 WFT MWD SURFACE (OH)	MWD	MWD - Standard
2,340.00	8,865.00	Survey #2 SDI MWD PRODUCTION (OH	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,514,175.84	2,080,870.82	39° 57' 24.300 N	109° 25' 41.891 W
10.00	0.00	0.00	10.00	0.00	0.00	14,514,175.84	2,080,870.82	39° 57' 24.300 N	109° 25' 41.891 W
186.00	1.65	294.91	185.98	1.07	-2.30	14,514,176.86	2,080,868.51	39° 57' 24.311 N	109° 25' 41.920 W
FIRST WFT MWD SURFACE SURVEY									
272.00	2.54	326.55	271.92	3.18	-4.47	14,514,178.94	2,080,866.30	39° 57' 24.331 N	109° 25' 41.948 W
358.00	3.84	329.11	357.78	7.24	-7.00	14,514,182.95	2,080,863.70	39° 57' 24.372 N	109° 25' 41.981 W
448.00	5.56	327.68	447.48	13.51	-10.88	14,514,189.15	2,080,859.71	39° 57' 24.434 N	109° 25' 42.031 W
538.00	6.75	328.93	536.96	21.73	-15.94	14,514,197.28	2,080,854.50	39° 57' 24.515 N	109° 25' 42.096 W
628.00	8.63	329.55	626.15	32.08	-22.09	14,514,207.52	2,080,848.17	39° 57' 24.617 N	109° 25' 42.175 W
718.00	10.25	328.80	714.92	44.75	-29.66	14,514,220.06	2,080,840.38	39° 57' 24.742 N	109° 25' 42.272 W
808.00	11.56	328.55	803.30	59.29	-38.52	14,514,234.44	2,080,831.27	39° 57' 24.886 N	109° 25' 42.385 W

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1022-10M1AS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	**MD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-10M1AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
898.00	13.13	328.80	891.21	75.73	-48.52	14,514,250.70	2,080,820.98	39° 57' 25.049 N	109° 25' 42.514 W
988.00	14.75	326.55	978.56	94.04	-60.13	14,514,268.80	2,080,809.05	39° 57' 25.229 N	109° 25' 42.663 W
1,078.00	16.04	325.06	1,065.33	113.79	-73.57	14,514,288.31	2,080,795.26	39° 57' 25.425 N	109° 25' 42.836 W
1,168.00	18.00	323.55	1,151.38	135.17	-88.95	14,514,309.42	2,080,779.50	39° 57' 25.636 N	109° 25' 43.033 W
1,258.00	19.44	322.68	1,236.62	158.27	-106.29	14,514,332.20	2,080,761.76	39° 57' 25.864 N	109° 25' 43.256 W
1,348.00	20.44	321.93	1,321.22	182.55	-125.06	14,514,356.15	2,080,742.56	39° 57' 26.104 N	109° 25' 43.497 W
1,438.00	20.75	324.43	1,405.47	207.89	-144.03	14,514,381.16	2,080,723.15	39° 57' 26.355 N	109° 25' 43.741 W
1,528.00	22.63	325.05	1,489.10	235.05	-163.22	14,514,407.98	2,080,703.48	39° 57' 26.623 N	109° 25' 43.987 W
1,618.00	23.65	325.05	1,571.86	264.04	-183.48	14,514,436.60	2,080,682.71	39° 57' 26.910 N	109° 25' 44.247 W
1,708.00	23.00	323.93	1,654.50	293.05	-204.18	14,514,465.24	2,080,661.51	39° 57' 27.197 N	109° 25' 44.513 W
1,798.00	23.69	326.18	1,737.13	322.29	-224.59	14,514,494.11	2,080,640.58	39° 57' 27.486 N	109° 25' 44.775 W
1,888.00	23.63	327.43	1,819.57	352.51	-244.37	14,514,523.98	2,080,620.28	39° 57' 27.784 N	109° 25' 45.029 W
1,978.00	23.81	326.43	1,901.97	382.84	-264.12	14,514,553.97	2,080,599.99	39° 57' 28.084 N	109° 25' 45.283 W
2,068.00	22.56	328.68	1,984.70	412.73	-283.14	14,514,583.51	2,080,580.45	39° 57' 28.380 N	109° 25' 45.527 W
2,158.00	22.81	328.43	2,067.74	442.34	-301.25	14,514,612.80	2,080,561.82	39° 57' 28.672 N	109° 25' 45.760 W
2,241.00	22.72	327.45	2,144.27	469.56	-318.30	14,514,639.72	2,080,544.30	39° 57' 28.941 N	109° 25' 45.979 W
LAST WFT MWD SURFACE SURVEY									
2,340.00	21.97	324.04	2,235.84	500.67	-339.46	14,514,670.44	2,080,522.59	39° 57' 29.249 N	109° 25' 46.251 W
FIRST SDI MWD PRODUCTION SURVEY									
2,430.00	22.70	322.49	2,319.09	528.07	-359.92	14,514,697.48	2,080,501.65	39° 57' 29.520 N	109° 25' 46.514 W
2,521.00	22.31	322.25	2,403.16	555.66	-381.19	14,514,724.69	2,080,479.90	39° 57' 29.792 N	109° 25' 46.787 W
2,611.00	22.74	321.52	2,486.29	582.78	-402.47	14,514,751.43	2,080,458.15	39° 57' 30.060 N	109° 25' 47.060 W
2,702.00	23.72	322.04	2,569.91	610.98	-424.67	14,514,779.24	2,080,435.45	39° 57' 30.339 N	109° 25' 47.345 W
2,792.00	23.88	323.34	2,652.26	639.87	-446.68	14,514,807.73	2,080,412.93	39° 57' 30.625 N	109° 25' 47.628 W
2,883.00	23.98	324.62	2,735.44	669.72	-468.39	14,514,837.20	2,080,390.71	39° 57' 30.920 N	109° 25' 47.907 W
2,973.00	24.41	325.99	2,817.53	700.05	-489.38	14,514,867.15	2,080,369.18	39° 57' 31.219 N	109° 25' 48.176 W
3,064.00	23.65	326.20	2,900.65	730.80	-510.05	14,514,897.54	2,080,347.97	39° 57' 31.523 N	109° 25' 48.442 W
3,154.00	23.58	327.94	2,983.11	761.06	-529.65	14,514,927.44	2,080,327.85	39° 57' 31.823 N	109° 25' 48.694 W
3,245.00	23.91	328.35	3,066.41	792.18	-548.99	14,514,958.22	2,080,307.96	39° 57' 32.130 N	109° 25' 48.942 W
3,335.00	24.15	326.73	3,148.61	823.10	-568.66	14,514,988.79	2,080,287.75	39° 57' 32.436 N	109° 25' 49.195 W
3,426.00	23.81	326.55	3,231.75	853.99	-589.00	14,515,019.32	2,080,266.87	39° 57' 32.741 N	109° 25' 49.456 W
3,516.00	22.98	326.61	3,314.35	883.82	-608.68	14,515,048.79	2,080,246.67	39° 57' 33.036 N	109° 25' 49.709 W
3,607.00	21.97	327.88	3,398.44	913.07	-627.51	14,515,077.71	2,080,227.33	39° 57' 33.325 N	109° 25' 49.950 W
3,697.00	21.57	330.11	3,482.02	941.67	-644.70	14,515,106.00	2,080,209.63	39° 57' 33.608 N	109° 25' 50.171 W
3,788.00	20.27	329.14	3,567.02	969.71	-661.12	14,515,133.74	2,080,192.72	39° 57' 33.885 N	109° 25' 50.382 W
3,879.00	18.47	329.65	3,652.87	995.68	-676.49	14,515,159.44	2,080,176.89	39° 57' 34.142 N	109° 25' 50.580 W
3,970.00	16.39	325.35	3,739.69	1,018.69	-691.08	14,515,182.19	2,080,161.90	39° 57' 34.369 N	109° 25' 50.767 W
4,060.00	16.59	326.98	3,825.99	1,039.90	-705.30	14,515,203.15	2,080,147.31	39° 57' 34.579 N	109° 25' 50.950 W
4,151.00	15.02	328.13	3,913.54	1,060.81	-718.61	14,515,223.82	2,080,133.64	39° 57' 34.785 N	109° 25' 51.121 W
4,241.00	13.13	328.32	4,000.84	1,079.42	-730.13	14,515,242.22	2,080,121.78	39° 57' 34.969 N	109° 25' 51.269 W
4,332.00	11.14	328.67	4,089.80	1,095.72	-740.13	14,515,258.35	2,080,111.50	39° 57' 35.130 N	109° 25' 51.397 W
4,422.00	10.08	327.38	4,178.26	1,109.79	-748.90	14,515,272.25	2,080,102.49	39° 57' 35.269 N	109° 25' 51.510 W
4,513.00	8.82	327.05	4,268.02	1,122.35	-756.99	14,515,284.67	2,080,094.18	39° 57' 35.394 N	109° 25' 51.614 W
4,603.00	7.74	327.93	4,357.08	1,133.27	-763.96	14,515,295.47	2,080,087.02	39° 57' 35.502 N	109° 25' 51.703 W
4,694.00	6.20	330.84	4,447.41	1,142.76	-769.61	14,515,304.85	2,080,081.20	39° 57' 35.595 N	109° 25' 51.776 W
4,784.00	3.66	330.08	4,537.07	1,149.49	-773.41	14,515,311.52	2,080,077.28	39° 57' 35.662 N	109° 25' 51.825 W
4,875.00	1.82	339.86	4,627.96	1,153.37	-775.36	14,515,315.36	2,080,075.27	39° 57' 35.700 N	109° 25' 51.850 W
4,966.00	0.79	6.22	4,718.94	1,155.35	-775.78	14,515,317.33	2,080,074.80	39° 57' 35.720 N	109° 25' 51.855 W
5,056.00	0.86	29.99	4,808.93	1,156.55	-775.38	14,515,318.54	2,080,075.19	39° 57' 35.732 N	109° 25' 51.850 W
5,147.00	0.61	7.83	4,899.92	1,157.62	-774.97	14,515,319.62	2,080,075.57	39° 57' 35.742 N	109° 25' 51.845 W
5,237.00	0.89	13.31	4,989.91	1,158.78	-774.75	14,515,320.78	2,080,075.78	39° 57' 35.754 N	109° 25' 51.842 W
5,328.00	0.86	348.27	5,080.90	1,160.13	-774.72	14,515,322.14	2,080,075.78	39° 57' 35.767 N	109° 25' 51.841 W
5,418.00	0.70	345.50	5,170.90	1,161.33	-775.00	14,515,323.32	2,080,075.48	39° 57' 35.779 N	109° 25' 51.845 W
5,509.00	0.83	341.31	5,261.89	1,162.49	-775.35	14,515,324.48	2,080,075.11	39° 57' 35.790 N	109° 25' 51.849 W
5,599.00	0.84	345.35	5,351.88	1,163.74	-775.72	14,515,325.73	2,080,074.72	39° 57' 35.803 N	109° 25' 51.854 W

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1022-10M1AS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	**MD Reference:**	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-10M1AS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,690.00	0.74	337.50	5,442.87	1,164.93	-776.12	14,515,326.91	2,080,074.30	39° 57' 35.814 N	109° 25' 51.859 W
5,781.00	0.46	52.84	5,533.86	1,165.70	-776.05	14,515,327.67	2,080,074.35	39° 57' 35.822 N	109° 25' 51.858 W
5,871.00	0.64	67.95	5,623.86	1,166.10	-775.30	14,515,328.10	2,080,075.10	39° 57' 35.826 N	109° 25' 51.849 W
5,962.00	0.57	68.63	5,714.86	1,166.46	-774.40	14,515,328.47	2,080,075.99	39° 57' 35.830 N	109° 25' 51.837 W
6,052.00	0.49	114.41	5,804.85	1,166.46	-773.64	14,515,328.48	2,080,076.75	39° 57' 35.830 N	109° 25' 51.827 W
6,143.00	0.60	118.71	5,895.85	1,166.07	-772.87	14,515,328.11	2,080,077.53	39° 57' 35.826 N	109° 25' 51.818 W
6,233.00	0.91	115.37	5,985.84	1,165.54	-771.81	14,515,327.59	2,080,078.60	39° 57' 35.820 N	109° 25' 51.804 W
6,323.00	0.64	99.48	6,075.83	1,165.15	-770.66	14,515,327.23	2,080,079.75	39° 57' 35.817 N	109° 25' 51.789 W
6,414.00	0.61	116.65	6,166.83	1,164.85	-769.73	14,515,326.94	2,080,080.69	39° 57' 35.814 N	109° 25' 51.777 W
6,505.00	1.12	172.34	6,257.82	1,163.75	-769.18	14,515,325.85	2,080,081.26	39° 57' 35.803 N	109° 25' 51.770 W
6,595.00	1.11	164.18	6,347.80	1,162.04	-768.82	14,515,324.15	2,080,081.64	39° 57' 35.786 N	109° 25' 51.766 W
6,686.00	1.54	163.82	6,438.78	1,160.02	-768.24	14,515,322.14	2,080,082.26	39° 57' 35.766 N	109° 25' 51.758 W
6,776.00	1.09	160.72	6,528.75	1,158.05	-767.62	14,515,320.18	2,080,082.92	39° 57' 35.746 N	109° 25' 51.750 W
6,867.00	1.29	174.94	6,619.73	1,156.21	-767.25	14,515,318.35	2,080,083.32	39° 57' 35.728 N	109° 25' 51.745 W
6,957.00	1.37	152.02	6,709.71	1,154.25	-766.65	14,515,316.40	2,080,083.95	39° 57' 35.709 N	109° 25' 51.738 W
7,048.00	1.16	157.04	6,800.69	1,152.44	-765.78	14,515,314.61	2,080,084.85	39° 57' 35.691 N	109° 25' 51.727 W
7,138.00	0.62	142.23	6,890.68	1,151.22	-765.13	14,515,313.39	2,080,085.53	39° 57' 35.679 N	109° 25' 51.718 W
7,229.00	1.31	155.16	6,981.66	1,149.89	-764.39	14,515,312.07	2,080,086.29	39° 57' 35.666 N	109° 25' 51.709 W
7,319.00	1.12	155.70	7,071.64	1,148.15	-763.60	14,515,310.35	2,080,087.12	39° 57' 35.649 N	109° 25' 51.699 W
7,409.00	0.93	191.87	7,161.63	1,146.64	-763.39	14,515,308.84	2,080,087.35	39° 57' 35.634 N	109° 25' 51.696 W
7,500.00	1.28	178.04	7,252.61	1,144.90	-763.50	14,515,307.10	2,080,087.27	39° 57' 35.616 N	109° 25' 51.697 W
7,591.00	1.47	176.75	7,343.59	1,142.72	-763.40	14,515,304.92	2,080,087.41	39° 57' 35.595 N	109° 25' 51.696 W
7,681.00	1.15	165.81	7,433.56	1,140.69	-763.11	14,515,302.90	2,080,087.73	39° 57' 35.575 N	109° 25' 51.692 W
7,772.00	0.80	135.23	7,524.55	1,139.35	-762.44	14,515,301.57	2,080,088.42	39° 57' 35.562 N	109° 25' 51.684 W
7,862.00	0.94	137.55	7,614.54	1,138.36	-761.50	14,515,300.60	2,080,089.38	39° 57' 35.552 N	109° 25' 51.672 W
7,953.00	1.16	108.69	7,705.52	1,137.51	-760.13	14,515,299.78	2,080,090.77	39° 57' 35.543 N	109° 25' 51.654 W
8,043.00	1.07	119.91	7,795.51	1,136.80	-758.53	14,515,299.10	2,080,092.38	39° 57' 35.536 N	109° 25' 51.633 W
8,133.00	0.53	108.77	7,885.50	1,136.25	-757.41	14,515,298.56	2,080,093.51	39° 57' 35.531 N	109° 25' 51.619 W
8,224.00	0.81	82.83	7,976.49	1,136.20	-756.38	14,515,298.53	2,080,094.55	39° 57' 35.530 N	109° 25' 51.606 W
8,315.00	1.21	97.26	8,067.48	1,136.15	-754.78	14,515,298.51	2,080,096.14	39° 57' 35.530 N	109° 25' 51.585 W
8,405.00	1.50	91.26	8,157.45	1,136.01	-752.66	14,515,298.40	2,080,098.26	39° 57' 35.529 N	109° 25' 51.558 W
8,496.00	1.43	84.72	8,248.42	1,136.09	-750.34	14,515,298.52	2,080,100.58	39° 57' 35.529 N	109° 25' 51.528 W
8,586.00	1.58	62.08	8,338.39	1,136.77	-748.13	14,515,299.25	2,080,102.78	39° 57' 35.536 N	109° 25' 51.500 W
8,676.00	1.79	48.11	8,428.35	1,138.29	-745.99	14,515,300.80	2,080,104.90	39° 57' 35.551 N	109° 25' 51.472 W
8,767.00	1.87	76.05	8,519.31	1,139.60	-743.49	14,515,302.15	2,080,107.37	39° 57' 35.564 N	109° 25' 51.440 W
8,806.00	1.93	80.41	8,558.29	1,139.86	-742.22	14,515,302.44	2,080,108.63	39° 57' 35.567 N	109° 25' 51.424 W
LAST SDI MWD PRODUCTION SURVEY									
8,865.00	1.93	80.41	8,617.25	1,140.19	-740.26	14,515,302.80	2,080,110.59	39° 57' 35.570 N	109° 25' 51.399 W
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
186.00	185.98	1.07	-2.30	FIRST WFT MWD SURFACE SURVEY
2,241.00	2,144.27	469.56	-318.30	LAST WFT MWD SURFACE SURVEY

Checked By: _____ Approved By: _____ Date: _____

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01196C

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10M1AS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506350000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6401

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0173 FSL 1784 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 7/20/2016	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: WORKOVER

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

A WELLBORE CLEANOUT HAS BEEN COMPLETED ON THE NBU 1022-10M1AS WELL. PLEASE SEE THE ATTACHED OPERATIONS SUMMARY REPORT FOR DETAILS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
August 08, 2016

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Candice Barber	435 781-9749	HSE Representative
SIGNATURE N/A		**DATE** 8/8/2016

RECEIVED: Aug. 08, 2016

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10M1AS YELLOW	Spud Conductor: 8/23/2011	Spud date: 9/14/2011
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD	Rig name no.: MILES 2/2
Event: WELL WORK EXPENSE	Start date: 7/18/2016	End date: 7/20/2016
Active datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
7/18/2016	10:00 - 16:30	6.50	MAINT	30	A	P		MIRU, SCP 200psi produced some diesel, PCP 78psi. Kill tbg W/ 20B, csg W/ 30B. Pull tbg free, tally 18 jts. TIH 17 jts, Tag fill @ 8759', 1' below bot perf W/ 36' rat hole. TOH 17jts, SIW.
7/19/2016	7:00 - 7:15	0.25	MAINT	48		P		HSM/JSA
	7:15 - 12:00	4.75	MAINT	31	S	P		TBG 100PSI, CSG 0PSI, 20B TO CONTROL TBG. RU SCANTECH, POOH. 212 YELLOW JTS, 49 RED. REPLACED BAD TBG WITH YELLOW L-80
	12:00 - 19:30	7.50	MAINT	44	D	P		C/O TO PBTD @ 8794' WITH N2 UNIT AND POBS. L/D TBG @ 8277 (261 JTS). FOUND HOLES IN JTS 205 AND 206 IN COLLAR.
7/20/2016	7:00 - 7:15	0.25	MAINT	48		P		HSM/JSA
	7:15 - 10:00	2.75	MAINT	30	H	P		PUMP 40BBL TO PUMP OFF POBS. BROACH TBG. NDBOP NUWH. RDMO TO NBU 1022-10M1DS.

RECEIVED: Aug. 08, 2016

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10M1AS YELLOW	Spud Conductor: 8/23/2011	Spud date: 9/14/2011
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD	Rig name no.: MILES 2/2
Event: WELL WORK EXPENSE	Start date: 7/18/2016	End date: 7/20/2016
Active datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
7/25/2016	7:00 - 11:00	4.00	MAINT	35		P		WELL NAME: NBU-1022-10M1AS Job Code: 80012176 WINS #: ZID: CTS953 FOREMAN: V-1 Ryan kunkel MECHANICAL: JOHN YOUNG SLICKLINE COMPANY DELSCO SLICKLINE OPERATOR cassidy goodrich, kenney potter P-1074 TEL.NUMBER: 435-823-1707 DATE: 7/25/2016 JOB DESCRIPTION SUCCESSFUL Move to well, Rig up Starting pressures T-107 C-910, NOTE JOHN YOUNG SAID THAT PUMPER DROPPED SCALE KNOCKER AND IT SOUNDED LIKE IT DID NOT FALL VERY FAR DOWNHOLE, TOLD TO GET SCALE KNOCKER OUT AND PERFORM MAINTANENCE, Equalized Tubing and casing, Run in hole with JDC, get all the way down to Seat nipple@8267 latched scale knocker, come out of hole pulling heavy up to 7420 fluid level around there, come out of hole with Scale knocker, measured@1.892, Rebuile wire scratcher, Run in hole with Scratcher, light tight spot felt around 7019-30 get down To Seat nipple@8267, Beat scratcher into nipple. work nipple come out of hole, Run in hole with Sample Bailer Stacked out@8401 beat for 45 min was not making hole, felt really solid. called John young said we were not getting past 8401 john young said TD should be around 8700, come out of hole, no sample in bailer. Run in hole with Just rod on bottom of tools 1-1/2 in diameter, stacked out again@8401 tried to beat for 35 min was not making any hole, come out, run in hole with 1.904 Broach get down to Seat nipple@8267 come out of hole, dropped Scale Knocker in hole chase with tools@8267 come out of hole, Ending pressures T-840 C-889 blow down well Scale knocker would not trip up tubing pressure died off, called john young said to go ahead and leavel scale knocker in, Rigged down turned well to sales. final Ending Pressures T-45 C-890 travel back to shop
7/27/2016	7:00 - 15:00	8.00	PROD	42		P		Arrived to location, rigged up and blew tubing pressure down. Started swabbing made 5 runs, fluid level was at 4000 ft, recovered 35 bbls. Swabbed well back on, it unloaded for a while, there was a scale knocker in the hole already, so we tripped it twice, and it came up in 11 minutes. set well back on sales and headed back to the shop. [well had lots of scale down by 6800']
7/28/2016	7:00 - 14:00	7.00	PROD	42		P		Arrived to location, rigged up and bleed pressure down on tubing. Started swabbing made 5 runs fluid level was at, 5300 ft, recovered 28 bbls. Swabbed well back on, scale knocker finally come up, tripped it twice. Rigged down and headed back to the shop

RECEIVED: Aug. 08, 2016

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10M1AS YELLOW	Spud Conductor: 8/23/2011	Spud date: 9/14/2011	
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD		Rig name no.: MILES 2/2
Event: WELL WORK EXPENSE	Start date: 7/18/2016		End date: 7/20/2016
Active datum: RKB @5,108.00usft (above Mean Sea Level)	UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/173/W/0/1784/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
7/29/2016	7:00 - 15:00	8.00	PROD	42	B	P		Arrived to location, rigged up and bleed pressure down on tubing. Started swabbing made 5 runs fluid level was at, 5600 ft, recovered 40 bbls. Swabbed well back on, scale knocker never come up, so we tried to drop a viper on top of it and see if it would knock it loose, but still didnt come up, swabbed it back on again and they didnt come up. shut well in and called it a day
8/2/2016	7:00 - 15:00	8.00	PROD	42		P		Arrived to location, rigged up and bleed pressure down on tubing. Started swabbing made 4 runs fluid level was at, 4400 ft, recovered 28 bbls. Swabbed well back on, dropped scale knocker in, tripped it twice. Set well back on sales and headed back to the shop [tubing was clean there was no more scale]

RECEIVED: Aug. 08, 2016